# THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXII. SATURDAY, FEBRUARY 11, 1893. No. 6.


## ORIGINAL ARTICLES.

### SHOULD WE TREAT FEVER?[1]


BY S. T. ARMSTRONG, M.D., PH.D.,
VISITING PHYSICIAN TO THE HARLEM HOSPITAL, NEW YORK.


IT is almost unnecessary to offer any excuse for presenting for consideration so familiar a topic as is fever, because, as frequently as it is encountered in the routine of our daily work, it is nevertheless surrounded by some of the most abstruse problems in medicine, when we consider its etiology and treatment. More than six hundred different names are given under the caption FEVER in Foster's *Encyclopedic Medical Dictionary;* and although many of these may be appellations for the same disease, still their number affords an idea of the multifarious phases in which fever is encountered.

Pathologists and clinicians have not yet agreed regarding the cause of the manifestation of fever in the animal organism. The late Austin Flint, in an address delivered before the Ninth International Medical Congress (THE MEDICAL NEWS, September 10, 1887), said that "an essential fever is an excessive production of heat in the body, induced by a special morbific agent or agents, and due to excessive oxidation, with destruction of the tissues of the body, and either a suppression or a considerable diminution in the production of water." He intentionally ignored the causative influence of the nervous system.

W. H. Welch showed in his Cartwright Lectures (THE MEDICAL NEWS, April 7, *et seq.*, 1888) that the most frequent cause of fever was some substance that exerted a pyrogenic effect when introduced into the circulation, so that it could act in some way upon the nervous system. Welch considered that if it was assured that these substances incited directly in the blood and tissues chemical changes that led to an increased production of heat, it was even then necessary to have recourse to some action that was exercised upon the nervous system, in order to satisfactorily explain the phenomena of fever.

Samuel (*Real Encyclopädie der gesammten Heilkunde*, art. "Fieber") defines fever as an elevation of temperature that is evoked in consequence of a lesion of the heat-centers. Donald Macalister, in his work on the nature of fever, expressed the opinion that physiologic and pathologic experiments had shown that pyrexia depended on impairment of the inhibitory force by which the heat-producing process is kept within normal physiologic grounds—that is, impaired thermotaxis; upon an increased activity of the process by which the heat is naturally formed, that is, exalted thermogenesis; and upon a more or less complete failure of the process by which heat is discharged—that is, a failure of thermolysis. If we accept this latter explanation, and each year's discoveries add force to the reasons now existing for such acceptance, the infection of the blood by any organic product is simply the means of reaching the nervous centers, thereby producing the phenomena of fever. It must be stated that this theory is not universally accepted, Professor Arnaldo Cantani believing (*Transactions of the Tenth International Medical Congress*, vol. i, p. 152) that fever is an acute alteration of organic metabolism, with increase of tissue-combustion, thus agreeing with Flint, though overlooking Welch's warning that even with this theory it was necessary, in the last analysis, to have recourse to the action of the heat-centers.

Most clinicians accept fever as the principal index of the course of an infective process in the animal organism; and the question must be decided, in each case of fever, whether the infection is autogenetic or heterogenetic. We know that certain poisons, such as strychnine, veratrine, nicotine, and picrotoxin, will produce fever when given in certain doses. In certain digestive disturbances the peptones formed during digestion may gain access to the general circulation, and produce an autogenetic infection-fever, analogous to the ferment-fever that Hildebrandt has produced in dogs by the subcutaneous injection of pepsin. Vaughan and Novy have called attention (*Ptomaïnes ana Leukomaïnes*, Philadelphia, 1891) to this intra-organic formation of poisons, and they emphasize the importance of the subject by saying that "a man may drink only chemically pure water, eat only that food which is free from all adulterations, and breathe nothing but the purest air, free from all organic matter, both living and dead, and yet that man's excretions would contain poisons." They consider that it is unimportant whether the proteid molecule is broken up by organized ferments (bacteria), by unorganized fer-

[1] Read before the New York State Medical Association, November 17, 1892.

ments (the digestive juices), or by those unknown agencies that induce metabolic changes in the tissues, for in all cases poisons, differing in quality and quantity according to the proteid that is acted upon, will be formed. These poisons produce the autogenous fevers known as fatigue, exhaustion, thermic, non-eliminative, nervous, and hysterical.

Whatever cause may produce the fever, there is always an increased temperature that physiologists have shown is due not merely to a diminution of the loss of heat, but chiefly to an increased production of heat, as calorimetric observations have proved. Increased heat-production alone would be insufficient to raise the temperature of the body if there was a compensating increase of loss of heat; but this compensation is wanting in fever, and it has been designated the most characteristic feature of the febrile condition. Besides the ataxia of the thermal centers there are increased metabolism, as is evidenced by the augmented excretion of carbon dioxid, of urea, and the other urinary products; greater frequency in the number of the heart-beats, and in the respiration; diminution of the digestive activity and intestinal movements; and general disturbances of the organic functions.

From this *résumé* of the febrile phenomena it may be deduced that pyrexia, as seen by the physician, is the expression of certain pathologic processes that interfere with the physical and mental welfare of the person affected, and that consequently demand treatment.

When those interested in the history of medicine read the works that served to guide and instruct our predecessors of the first half of this century, and learn therefrom the then prevalent practice of starving the fever-patient, they will entertain a high regard for Dr. Graves, whose teaching assisted in securing the abandonment of this practice, and who said the only epitaph he desired was: "He fed fevers." And while there may be unanimity of opinion regarding this point, the physician is confronted in this *fin de siècle* by another problem that cannot but be an absorbing one, for there are those that urge, though they may not seek epitaphic renown, that there should be no treatment for fever *per se*. Are we to throw, so to speak, our antipyretics to the dogs? Is fever a beneficial organic reaction to the metabolic and hemic changes produced by the causative agent of the disease? Osler, in his recent work on the *Practice of Medicine*, says: "Fever alone is not hurtful, but it is difficult to differentiate the effects of fever and of the poisons circulating in the blood. It is not impossible, as some suppose, that the fever may be directly beneficial; still, high and prolonged pyrexia is undoubtedly dangerous and should be combated." And Lyman, in his more recent work on the *Practice of Medicine*, says: "The elevation of temperature that marks the course of fever is not an unmixed evil, yet it is customary to attempt its reduction." Each of these authors seems to have accepted the fever-process as explicable by the seemingly fantastic German theory of the day that fever is in the nature of a reparative process. In just what way it is reparative we are not informed; and it is as impossible to say with our present knowledge, in exactly what way fever accomplishes any useful purpose, as it was when Welch published his classic study on the subject of fever.

The conclusion formulated by Austin Flint in the address heretofore referred to, that "the abstraction of heat by external cold, and the reduction of temperature by antipyretics administered internally, without affecting the special cause of the fever, improve the symptoms which are secondary to the pyrexia," expresses the practice and belief of most physicians.

Reference has been made to the influence of certain alkaloidal poisons in increasing the temperature, presumably in consequence of their effect upon the heat-centers. But recently, Dr. E. Maurel has published (*Bulletin de Thérapeutique*, 1892, cxxii, p. 259) a series of experimental researches on the action of these alkaloids on leukocytes, and he finds that the toxic action of the alkaloids on the animal economy is in the ratio of their destructive action to the leukocytes. For example, five centigrams of strychnine will immediately kill all the leukocytes in one hundred grams of human blood, while two centigrams of that drug will effect the same result in the same quantity of blood in several hours. Five centigrams of atropine would also instantly kill the leukocytes in one hundred grams of human blood; although in the blood of the hare, an animal that eats belladonna with impunity, the alkaloid was almost without effect upon the leukocytes in the strength of two grams of atropine to one hundred grams of blood. Pilocarpine kills the leukocytes in human blood in a dose of ten centigrams to one hundred grams of blood. These experiments forcibly demonstrate the important relation existing between the leukocytes and the functions of the organism, and give force to Metschnikoff's theory of the relation between phagocytosis and immunity from disease. If these drugs that may produce fever are toxic to the leukocyte, should our treatment of fever have in view the preservation of the leukocyte under the best conditions, because in fever we have poisoning by animal rather than vegetable alkaloids?

The experiments that were made with the product of the tubercle-bacillus are not so old that we have forgotten the fever that soon followed the hypodermatic injection of a small quantity of tuberculin.

The injection of the products of the cholera-spirillum is also followed by fever, a result that is subsequent to the hypodermatic injection of the products of several of the infectious microörganisms. Such a fever, though usually enduring only a few hours, may be sustained by repeated injections of the toxin-product employed. It is therefore apparent that the microörganism causes fever by the production of its leukomaïn or toxin, rather than by the presence of the organism itself in the body.

It is possible to adduce further evidence of the influence of the increased toxicity of the blood in producing disturbances of the thermal centers, just as an analogous autogenetic increase of the toxicity of the blood-serum causes disturbances of the convulsive centers. The recently published experiments of Bouchard have shown that during puerperal convulsions the urine is diminished in quantity, and that it is less toxic than usual, so that effete products that should be excreted are retained in the animal organism. Dr. Chambrelent has proved (*Lancet*, September 24, 1892) the latter statement to be a fact, by supplementing Bouchard's experiments with the urine by those he made with blood-serum that he also obtained from women suffering with puerperal eclampsia. Chambrelent's results showed that the poisonous properties of the serum were constantly related to the gravity of the case, so that increased autogenetic infection augmented the severity of the convulsions.

The high temperature of fever cannot exercise a fatal influence on the specific microörganisms with which we are acquainted, because they develop most favorably at temperatures of from 35° to 40° centigrade, so that the usual febrile temperatures are best suited to their growth. This would seem as if fever was more useful to the microörganism than to the animal organism. Robert Koch regards temperature as the most important factor in the process of attenuation of the microörganisms, the temperature effect being aided perhaps by certain products of tissue-change in the bacilli. That these latter products are the more important in producing this attenuation is shown by the existence of the cholera-spirillum, the typhoid-bacillus, and other specific microörganisms in the tissues of persons affected by the respective infectious diseases after all febrile phenomena have ceased.

The brothers Klemperer have shown that in animals inoculated with the pneumonia-coccus, temperatures varying from 40° to 41° centigrade were reduced to normal in twenty-four hours after the injection of serum from another animal that possessed immunity to pneumonia. They believed that the pneumonia-coccus generated in the animal organism a product that they called pneumotoxin, that produced elevation of temperature; the pneumotoxin in its conflict with the leukocytes generated an anti-pneumotoxin that neutralized both the pneumotoxin and the pneumonia-coccus. They injected the blood-serum of persons convalescent from pneumonia into six pneumonic patients, and in from six to twelve hours subsequently there was a decided fall of temperature that remained normal in two of these patients.

Metschnikoff, Golgi (*Phagocytisme dans le Paludisme*), Gamaleia (*Annal. de l'Instit. Pasteur*, 1888, p. 229), and Laveran (*Traité des Fièvres palustres*) agree that febrile heat acts like artificial heat in increasing the activity of the leukocytes so that the parasitic elements become more easily their prey than in an individual in whom the temperature is normal. Metschnikoff (*Annal. de l'Instit. Pasteur*, 1887, p. 329) states that in relapsing fever the febrile access lasts during the free life of the spirilla in the blood, and ceases when these parasites become the prey of the leukocytes.

Here again we see the disposition to make the fever a reparative process; and yet clinical and experimental facts do not wholly warrant the deduction. In the experiments of the Klemperers already cited, the fever was insufficient to increase the leukocytic activity to a degree that disposed of the pneumonia-coccus and prevented the formation of additional pneumotoxin. It had been proved that the latter by itself caused fever; therefore it is a justifiable inference that the persistence of fever for from six to twelve hours after the injection of the serum from the pneumonic convalescents was due to the pneumotoxin present in the blood at the time the injection was made; and the subsequent decline in temperature was caused by the destruction of the pneumonia-cocci by the serum and consequent cessation in the formation of pneumotoxin.

In paludal poisoning the fever persists or recurs as long as the specific hematozoa are present in the blood. Quinine has no special influence in inciting leukocytic activity, at least as a principle applicable in all diseases. Yet the administration of quinine, by destroying the specific organism of paludal disease, ends the fever that never plays the rôle of a reparative process therein.

Opposed to this deduction are the experiments of Alexander (*Bresl. ärzt. Zeitschr.*, 1884, Nov. 11), that showed that the number of spirilli in relapsing fever increased when the temperature of the affected person was lowered by antipyrin. Wagner (*Ann. de l'Instit. Pasteur*, 1890, p. 571) showed, as Pasteur had shown before him, that fowls exposed to cold became capable of acquiring charbon; he considered that this occurred in them because the leukocytes lost a portion of their activity, and he was able to produce the same effect by lowering the temperature of the fowls by antipyrin.

Professor A. Rovighi, in the report (*Le Mercredi médical*, Aug. 3, 1892) of the results of his experiments made to determine the influence of artificial elevation and depression of temperature upon the course of infective processes, stated that he inoculated rabbits with human saliva, which was poisonous for these animals; he placed some of them, together with uninoculated rabbits, in a thermostat in which the temperature oscillated between 36° and 40° C. Other inoculated rabbits were kept in ordinary cages, while still others were placed in cold chambers and in cold baths, in which their temperature did not exceed 40° C. Death occurred earlier in the latter animals than in those in the thermostat; in fact, these latter died more slowly than those in the ordinary cages. But if the temperature of the rabbits in the thermostat exceeded 43°, death occurred quickly. Elevation of temperature occurred much more rapidly in the infected than in the uninfected animals in the thermostat. The loss of weight was much greater in the animals exposed to a lower than in those exposed to a higher temperature. At the point of inoculation in the latter there was an abundant fibrinous exudate containing a large number of leukocytes, while in the refrigerated animals the exudate was sero-purulent and less rich in leukocytes. The blood of the animals in the thermostat was much more toxic than that of those refrigerated, evidencing an increased formation of toxins in the former; though cultivations succeeded better if made from the blood of the refrigerated animals, because it more frequently contained the living microörganism.

Rovighi also inoculated rabbits with mouse-septicemia; and those to which he subsequently gave acetanilid rapidly succumbed to a considerable decrease of temperature, while those infected in the same way that were placed in a thermostat presented no other morbid phenomena than an induration at the point of inoculation. He also found that rabbits and guinea-pigs inoculated with charbon survived longer if kept at a high than if kept at a low temperature, the charbon-bacillus appearing in the blood of the former later than in that of the latter.

Walter has published (*Archiv für Hygiene*, 1891, Bd. xii. p. 329) the results of experiments upon the artificial elevation of the temperature of the body on the course of infection with the pneumonia-coccus, in which he found that high temperature prevented the passage of the organism into the blood.

While it appears to follow from these experiments that an elevation of temperature to a certain degree exercises a favorable influence upon the infected animal, and that a lowering of temperature increases the intensity of the infective processes, it must be remembered that these are extraneous influences, while fever is an intrinsic influence. The observations of Röhrig and Kuntz, Colosanti and Kukler, Theodor and others have shown that gaseous exchange, and particularly tissue-oxidation in febrile animals, are much more intense in those exposed to cold than in those kept in thermostats. Yet these results are at variance with clinical facts, for it cannot be denied that the best results in treating typhoid fever have been obtained by the use of cold baths that keep the temperature below 40° C.; and if these increase the intensity of the febrile process and of tissue-oxidation, we are led to believe that the patients of those that use them recover in spite of, rather than on account of, the treatment that is only useful in increasing the elimination of toxic products.

The researches of Penro have shown that karyokinesis and the regeneration of tissue are affected much more rapidly at a temperature of from 34° to 38° than at a temperature of from 7° to 12° C.; but it has not been shown that karyokinesis and tissue-regeneration are affected at a temperature of from 38° to 40° C., as well as at the lower temperatures that antipyretic treatment endeavors to secure, and never does that treatment seek to reduce the temperature below 37.2° C., at which, experiment has shown, these processes are most effectively performed.

If the statements that "fever alone is not hurtful," or that "fever is not an unmixed evil," are based on the production of artificial fever in animals by inoculation, it is necessary to remember that in the latter such a fever only reaches a temperature of from 1° to 4° F. above the normal temperature of the animal; and if based on the fever produced by prolonged confinement in thermostats kept at high temperatures, the animal's temperature in such instances was only 4° to 5° above normal. Such rises of temperature are not regarded with any alarm when they occur in man; but while we may not look upon them as intrinsically hurtful or evil, they certainly cannot be regarded as beneficial or good. A fair analogy to the treatment of moderate rises of temperature is that of the treatment of pain. Each condition is indicative of irritation of certain portions of the nervous system; and though it has been maintained that pain is beneficial, it is the popular plan to relieve it at once whenever it appears, subsequently attending to the disturbing factor of which the pain was the index. So, I believe, we should deal with fever; relieve it by suitable antipyretics whenever it appears, and then give those remedies that will eliminate the exciting cause.

In this review of the question whether it is desirable to relieve pyrexia by the administration of antipyretics, the following points have been held in view:

1. That fever is the expression of some disturbance of the thermal centers.

2. That while this disturbance may be traumatic, it is usually the result of the existence in the organism of certain autogenetic or heterogenetic (infectious) products that have the same affinity for the thermal centers that certain vegetable alkaloids have for certain cerebral centers.

3. That fever does not exercise any beneficial effect in limiting an infectious process; this is a fact that has been known clinically for years by the occurrence of cases of infectious disease that pursued their usual course without any rise of temperature.

4. That it is the general experience of clinicians that the relief of fever exercises a beneficial influence on the general condition of the patient, though the apyrexia does not indicate that the cause of the pyrexia has been removed.

5. That in many febrile conditions the causative principle has produced a thermotaxic paresis that is at once relieved by some suitable antipyretic.

6. That in continuing the employment of antipyretics we are not losing sight of the possibility of obtaining, either synthetically or derivatively, compounds that will, when administered in the specific diseases, have the same inhibiting influence on the further development of the microörganisms of those diseases that certain alexins, toxalbumins, or toxins have. The action of such compounds should be as specific in each infectious disease as is the action of quinine in paludal fevers.

---

## ECLAMPSIA GRAVIDARUM ET PARTURIENTIUM.

BY J. LINDSAY PORTEOUS, M.D., F.R.C.S. ED.,
OF YONKERS, N. Y.

THE word "Eclampsia" is said by some authorities to be derived from ἐκ and λάμπω, I shine—because, in some forms of convulsions, flashes of light appear before the eyes, but the derivation that seems to us the best to describe the disease is ἐκ and λαμβάνω, I seize hold of, as in every form of this malady the patient clutches at something, real or imaginary.

Anyone who has had experience in obstetrics must have noticed that there are several varieties of this dreaded disease. Some, to those conversant with such cases, give little alarm; but unless the physician can promptly diagnosticate one form from another, much mental worry is occasioned both to himself and the friends of his patients. The object of this paper is to give some hints, the outcome of years of practice, to those of less experience.

There are at least five varieties, viz.: (1) hysteric, (2) epileptic, (3) uremic, (4) apoplectic, (5) microbic.

1. The first form (HYSTERIC) need give little cause for alarm. It is, as a rule, confined to the period of gestation, but may continue throughout the period, at intervals, until labor sets in. When, however, the throes of labor begin and there is something of a realistic nature to occupy the mind, it vanishes. As the symptoms of hysteria are so well known to every physician, we will only take a cursory glance at them. Beginning with a tightness about the throat and the "globus hystericus," the attack is attended with sobbing and frequent attempts to swallow. Then the patient may become still or roll about. The hands clutch something or are carried to the breast or some other part of the body. The face is sometimes pale, though not always. There is no froth issuing from the mouth, no tongue-biting, no falling in a dangerous place. A very prominent feature is the quivering of the eyelids. The fit terminates, after a longer or shorter period, with a scream and the shedding of tears, and a quantity of limpid urine is often involuntarily discharged. As a rule, this form of eclampsia causes no interference with gestation, although premature labor is said to have been caused by it. The treatment, being so well known, need not be gone into at the present time.

2. EPILEPTIC.—For the sake of a more correct and sytematic diagnosis, we will adopt the Brown-Séquard method of dividing the symptoms into three distinct heads: (A) the premonitory, (B) the paroxysmal, (C) the inter-paroxysmal.

A. The *premonitory* are in many cases well marked; although the classic or Galenic aura is not often a prominent premonitory feature of this form, there are many others almost always present. To economize space, we will summarize the more important symptoms: A vague, indescribable sensation is *sometimes* complained of. Irascibility of temper; a vascular contraction in feet and hands, producing a falling in temperature; a spasmodic state of some muscle, or an optical illusion or hallucination, are almost always present, singly or collectively. Numerous other symptoms which have been noticed by different observers we need not refer to.

B. The *paroxysmal*. In this stage the symptoms vary according to whether the attack is one of epilepsia mitior (*petit mal*) or epilepsia gravior (*haut mal*). In the former there may only be the unconscious state, with a fixed condition of the muscles of the eye or contraction of one or more muscles of the face, or a movement of the lips, tongue, and throat as in the act of swallowing; or, according to D. Russell Reynolds, the patient may be only unconscious, *i. e.*, have simple loss of perception and volition. In such case the duration of unconsciousness is so short (from one to four seconds) that the casual and inexperienced observer does not notice it. Epi-

lepsia gravior, on the other hand, presents a very complex state of affairs. There is contraction of the bloodvessels of the brain and face, with consequent face-pallor, loss of consciousness, congestion at the base of the brain and of the spinal cord, tonic contraction of the laryngeal, cervical, and some of the respiratory muscles (laryngismus and trachelismus), the peculiar cry, and falling backward or forward. There is also tonic contraction of the muscles of the limbs. The difficult breathing prevents the entrance of the blood into the chest and its issue from the cranio-spinal cavity. Asphyxia, contraction of bowels, bladder and womb, are present, with coma, fatigue, headache, and sleep. The urine has often been observed to contain albumin, although there was no evidence of renal disease.

c. *Inter-paroxysmal.* The general health of epileptics is usually poor. They are excitable. Their memory is bad and they are subject to fits of depression. Their digestion and circulation are often affected. These do not take a form which is peculiar to this disease; neither does their morbid condition of mind have any peculiarity, nor are they necessary concomitants of epilepsy. The frequency of attacks varies greatly—some may have them daily for years, others may have a period of many years between the attacks. The more violent the convulsion the less seldom the attack.

*Prognosis. Inherited* epilepsy is seldom cured. Brown-Séquard says positively that some cases may be cured. A chance of cure is greater when some curable or amendable organic alteration exists as the cause, than if such were not the case.

If the cause can be traced to syphilitic brain-disease, the chances of cure are most favorable. If tumor of the brain be the cause, modern cerebral sugery may often be employed with certain success. There seems to be no necessary complication, but chronic nephritis, disease of the womb or other viscus may favor these convulsions. In the pregnant woman, death of the fetus or premature expulsion is to be dreaded more than the immediate danger to the mother. We do not consider that the mother runs more risk from this form of convulsion *because* she is pregnant.

*Treatment.* Our chief object in treating this disease in the pregnant or parturient woman should be to curtail the duration, frequency, and severity of the attack, in order that she should go safely through her full term of pregnancy and have sufficient strength for the final efforts of parturition. The means we adopt to accomplish this end may, for the sake of covenience, be divided into three heads: (1) What to do at the outset of a paroxysm; (2) What to do during a paroxysm; (3) What to do between the paroxysms.

In case of the existence of a real aura, several means for the prevention of the development may be employed. Galen advised a treatment which is often successful, but the reason he gave has by Brown-Séquard been proved to be entirely wrong. The Galenic reason was that, by tying a ligature round a limb, it barred something from going to the brain. On the other hand, Brown-Séquard has proved that the preventive effect was caused "by sending an irritation toward or rather to the nervous centers." We have tried this with much success. The best way is not to apply the ligature and leave it, but to apply and to remove it repeatedly. It is not necessary, according to the same authority, to apply it to the limb when the aura is felt. If a premonitory symptom is disturbance of respiration, the administration of chloroform may give instant and sometimes permanent relief. Immersion of the hands in warm water, giving stimulants, applying ice to the nape of the neck, may each or all be applied successfully. If we can find a part of the body which, by irritation, gives rise to an attack, we should apply counter-irritants to that part. If this part be the central organ of the nervous system, the spinal marrow, which is acted upon by an excited condition of those nerves passing from the uterine organ to the spinal center, depending upon the puerperal state or upon actual labor, counter-irritants will be of little service. While these stimuli continue to influence the spinal marrow, epileptic convulsions may be caused in either of two ways: those acting permanently on the spinal marrow, or centric causes, and those affecting the extremities of its incidental nerves, which are causes of excentric or peripheral origin. According to Tyler Smith, those acting immediately on the central organ are: (1) Pressure on the medulla oblongata by congestion-coagula, nervous effusion within the cranium; (2) Loss of blood; (3) Morbid elements in the blood, the influence of emotion.

Of causes acting on the extremities of the excitor nerves we have: (1) Irritation of the incident spinal nerves of the uterus and uterine passages; (2) Irritation of the excitor nerves within the cranium; (3) Irritation of the incident spinal nerves of the rectum; (4) Irritation of the ovarian nerves; (5) Irritation of the gastric and intestinal branches of the pneumogastric nerves; (6) Irritation of the incidental spinal nerves of the bladder; (7) As probable causes may be enumerated: irritation of the cutaneous nerves of the mammæ and hepatic and renal branches of the pneumogastric. Of course, the centric and excentric causes may act together. Over many of the conditions named we have no control. At all times, however, we should attend to the condition of the alimentary canal and kidneys.

*Treatment during the paroxysm.* Lay the patient in the supine position; loosen the clothes. Use only

sufficient force to prevent the patient from injuring herself. Careful administration of chloroform is often useful when a status convulsivus occurs. If, however, the attacks are so frequent that they threaten death by exhaustion, or a miscarriage is imminent, or the period of gestation is within two months or even longer of completion, the most rational and best treatment in our experience is to hasten on labor and deliver as quickly as possible. The safest mode of performing this is by digital dilatation, which may be accomplished in from one hour and a quarter to two hours. This is simple enough, with an assistant, to dilate by turns.

In the inter-paroxysmal stage, if the convulsions are not of a serious nature, we must search for a cause and treat it.

There may be albumin in the urine, but not necessarily so, as we maintain that with this form of eclampsia the kidneys have little to do. About 9 per cent. of pregnant women have albumin in the urine some time during gestation, but convulsions do not occur in 9 per cent. of pregnant women.

3. UREMIC CONVULSIONS.—Whatever may be the primary cause of this form of convulsion, whether mechanical or chemical, most authorities agree that it is a strike on the part of the eliminative organs. The symptoms may in many points resemble those of epilepsy.

In some cases there may be no loss of consciousness, but in all cases there is an abundance of an albuminous body in the urine, and a great diminution in quantity, sometimes total suppression. The attacks may resemble tetanus. There may only be one, coming on without warning or preceded by headache, giddiness, and drowsiness, or numerous convulsions may take place in rapid succession. Death has occurred during the attack, but not frequently during the puerperal state (if there is no true renal disease), because their origin in this state is a combination of circumstances which does not long persist, as either nature or art comes to the rescue. As there is no structural change in the kidney, there is no serum-albumin.

*Treatment.* Reëstablish as quickly as possible the action of the eliminative organs. Apply poultices over the loins; use the hot pack; give hydragogue cathartics and digitalis; perform venesection up to 8 or 10 ounces; give diaphoretics, as pilocarpine, etc. If all this treatment is of no avail, we must consider the advisability of bringing on labor as in the previous case.

4. APOPLECTIC CONVULSIONS.—Although this form, strictly speaking, should not be put under the head of eclampsia, it does sometimes happen that a patient is so seized during gestation or parturition, and we ought to be prepared to diagnosticate the condition when present. It may be defined as loss of consciousness, of sensation, and of voluntary motion, coming on more or less suddenly, and due to a morbid state of the brain (Gowers).

*Symptoms.* The onset is often sudden. The face is generally, but not always, flushed. The heart and arteries beat more forcibly than normal, but less frequently. Respiration is labored and stertorous. In profound coma, pupils are dilated, and sluggish in their reaction to light. The sphincters become relaxed. There is often paralysis of one side. The temperature is at first always lowered, but rises in from twelve to twenty-four hours.

The condition may be mistaken for syncope due to cardiac inaction, but we trust that the mistake is not frequently made. In cardiac syncope the heart's action fails, the pulse is weak and almost imperceptible, the face is pale, respiration is sighing and irregular, and the sphincters are rarely relaxed. Albumin is often present in the urine in cases of cerebral hemorrhage. If the patient is young, and there is general edema, the case is more likely one of uremia than apoplexy. The coma is more profound in cerebral mischief than in uremia, although the patient may be roused in many cases. Convulsions may come on at the onset, but they are generally unilateral. In uremic poisoning there are *general convulsions* at the onset. Coma in apoplexy comes on suddenly; in uremia, slowly.

*Treatment.* Remove all constrictions around the neck. Apply sinapisms to the back of the neck and to the extremities. Carefully administer stimulants when embolism or thrombosis is suspected. Strong purgatives, such as croton oil, lessen the serum in the blood, and remove it from the brain. Apply cold to the head. Little else can be done; much interference may cause baneful results.

5. MICROBIC CONVULSIONS.—We are not aware that any notice of this form of convulsion has been given in text-books, and we are aware that not until the 25th of March of this year, had a microbe been discovered. On that day two French physicians announced that they had found the microbe of puerperal eclampsia. The symptoms can be best given by describing a recent typical case observed by the writer.

On a Tuesday in the month of April last, we called on a lady who expected to be confined the following month. She looked the picture of health; was cheerful and hopeful; had *no drowsiness* or feeling of fatigue. She was walking about her house, and, in fact, felt perfectly well. She had no anasarca, and both kidney, and bowels were performing their functions thoroughly. The urine contained no albumin; it had specific gravity of 1022, and was slightly acid. At 1 A.M., Wednesday, we were notified that the membranes had ruptured without pain. At 7 A.M. we visited her and found that she had slight labor-pains, which continued at long intervals till noon, when suddenly, without warning, she had a

convulsion which lasted about ten minutes. The twitching was only slight; there was no quivering of the eyelids, no frothing at the mouth, no pressing of the thumb on the palm. The face was at first pale, then gradually became of a purplish hue. The pupils were normal in size, but did not respond to light. The pulse rose to 98. The woman recovered consciousness almost at once, and vomited. There was a slight feeling of exhaustion, but nothing else to indicate her late condition. At 1 P.M. there was another very slight convulsion. Dreading more, we determined to hurry on labor and deliver. With the aid of D. E. Hermance, we anesthetized her deeply, and by persistent digital dilatation delivered her with forceps in one hour and twenty minutes of a dead child. When the effects of the anesthetic had passed away she felt comparatively comfortable. This condition remained till 7.30 P.M., when she had in rapid succession three slight convulsions. During the night she voided quite a quantity of urine, and slept well. All Thursday her condition seemed quite favorable. At night she had, on the suggestion of a physician, a small hypodermatic of morphine. At 7 A.M., Friday, we were told that she could not be awakened. The nurse had noticed during the night her twitching frequently. We immediately tried to restore consciousness, which, to the extent of an attempt to speak, we did. Steaming her, hypodermatics of pilocarpine, enemata, were tried without effect. A pint of urine was removed by catheter and found perfectly free from albumin. After numerous slight convulsions she died at about 4 P. M.

We noticed no symptoms which might be said to be peculiar to this form, but there was the absence of the prominent symptoms in the previous four forms of eclampsia. There were no premonitory symptoms whatever which might give us a clew to the cause. The treatment pursued, we maintain, was quite justifiable. Until we know of a positive destroyer of this puerperal microbe, we can only try to drive it out of the system by exciting all the eliminative organs to do their utmost, and thus lessen their power of destruction, and at the same time get the patient out of the parturient condition as soon as possible.

The question may arise, Is there a microbe present in all pregnant women, which some are able to throw off and others are not, which in some increase so much as to endanger life?

We firmly believe that this form of eclampsia, with our present knowledge of treatment, is *always* fatal; that the *four* previously mentioned are seldom fatal if the treatment we have suggested is faithfully carried out.

---

*For Impetigo Contagiosa.—*

℞.—Cocainæ hydrochlorat. . . gr. v.
Salol. . . . . gr. lxxij.
Ætheris . . . . . ♏ lxxij.
Collodion. . . . . ʒj.—M.
S.—Apply topically. *L'Union Méd.*, No. 148.

## *STUDY OF A CASE OF ERYSIPELAS GENITALIUM, DUE TO THE USE OF INFECTED OINTMENT.*[1]

BY ADELAIDE WARD PECKHAM, M.D.,
OF PHILADELPHIA.

M. D., born October 7, 1892, was a plump, healthy babe, with fair, sound skin. The navel healed quickly. The mother seemed free from disease, convalesced without rise of temperature, and there was a history of preceding normal pregnancies.

On November 12th, five weeks from the date of birth, I saw the child after an illness of twenty-four hours. The mother said that for a slight "chafing" of the genitalia she had applied an ointment that she had in the house, and that during the following day and night the child had become alarmingly ill.

On inquiry, the mother stated that the ointment had been used by a woman in the family on a suppurating gland in the neck, application having been made by dipping the fingers in the ointment. This woman gave a history of having fallen through a hatchway, striking the side of the neck upon a projection in the wall; a large abscess had formed, which suppurated very freely, leaving a long and angry-looking cicatrix.

On examining the child, the following conditions were found: Temperature, 103.8° F.; pulse full and very rapid, all food vomited, bowels constipated, extremities cold, convulsive twitchings of the muscles of the face and limbs, fingers and toes flexed, the pupils contracted. The child was in a state of coma. Locally there was a small excoriation on the left labium, intense redness and swelling of the skin over the pubic region, which was sharply defined, and did not extend to the anus. On November 13th, the second day, the erythema had extended to the anus and creases of the thighs; the labia were so infiltrated that the skin seemed tense enough to rupture; the temperature was 103.4° F. On November 14th, the inflammation had extended over the lower third of the abdomen and lower half of the back, making a shining, inflamed surface so sensitive that the child had a slight spasm when moved; temperature still 103.4° F. On November 15th, there was no extension of inflammation upward, but it had reached the left knee and halfway down the thigh on the right side, the parts being swollen to nearly twice the normal size; the skin over the genitalia was slightly paling; temperature, 103° F. On November 17th, both legs were very much swollen, and of a dusky-red color. The convulsive movements and insomnia, which had lessened, returned again; the tongue was coated; there was intense thirst and slight diarrhea. The temperature was now 102.4° F. On November 22d, the right foot was swollen, the inflammation on the right side reaching a point two days later than on the left; the cuticle was flaking on the parts first attacked, and on the labia it came off in casts; temperature, 99°. On November 25th, the left foot was nearly normal, and the right improving; temperature, 99° F. On November 29th, there was

[1] From the Laboratory of Hygiene, University of Pennsylvania.

noticed a swelling on the top of the left foot, and another on the inner malleolus of the right ankle showed beginning abscess-formation: there was also edema of the left labium. The temperature was normal. On December 2d, there was slight cough, the first symptom of the broncho-pneumonia that followed. Both abscesses were lanced. On December 8th, the respirations increased in frequency, and an area of dulness was found by percussion on the right side posteriorly; large and small mucus râles were heard over both lungs; there were frequent spells of coughing, with cyanosis around the mouth and nose, relieved by vomiting. On December 13th, another large abscess on the right ankle and a small one on the top of the left foot were lanced. A swelling, the size of a walnut, was found in the anterior axillary line between the fifth and sixth ribs. On December 14th, the rattling respiration and severe cough still continued. The skin over the abscess on the chest began to redden, and the temperature was 100° F. Two small abscesses were lanced, one on each foot. On December 18th, an abscess on the chest was lanced; the lungs were much clearer.

The left leg was red and swollen to the knee on December 21st. The temperature was 100° F. The redness of the leg had disappeared on December 23d, and a swelling involving two lymphatic glands was found in the left groin; these two glands coalesced into a single abscess-cavity. On December 24th, an abscess in the groin was lanced, and two ounces of pus were discharged. On December 26th, an abscess was forming under the right knee, and two enlarged glands were found in the left axilla. On December 27th, the abscess under the knee was lanced; temperature, 99.2° F. On December 30th, the incision made under the knee had become occluded by the dressing; temperature 106° F., but it fell to 101.2° F. in three hours after drainage was reëstablished. A gland in the left groin was much enlarged. On December 31st, the temperature was 100.1° F. A small abscess on the left ankle was lanced. On January 18th, two abscesses in the left axilla and one in the right groin were lanced.

During the whole period of abscess-formation the temperature seemed remarkably low. The test was made at different hours and on each day, and at no time did the temperature exceed 99° F., with the exception mentioned in the history.

*Treatment.*—During the first forty-eight hours hot fomentations were applied to the inflamed parts. Calomel, $\frac{1}{12}$ gr., with 2 grains of sodium bicarbonate was given every hour until the bowels moved. An ointment containing one dram each of ichthyol and zinc oxid to an ounce of cosmolin was used during the remainder of the attack of erysipelas. During the pyemia, brandy and syrup of iron chlorid were given in suitable doses, and elixir of calisaya whenever there was rise of temperature.

### BACTERIOLOGIC STUDY OF THE CASE.

The following experiments were made with the blood, pus, and sputum taken from the child, and with the ointment used during the first twenty-four hours of its illness. The latter was that variety of petroleum ointment named "Lucilline."

EXPERIMENT I.—On November 16th, from the advancing margin of the disease on the leg two drops of blood were drawn by puncture with a sterilized needle, the skin having previously been thoroughly washed in a solution of carbolic acid of approximately 2 per cent. strength. From the drops of blood six slanting tubes of nutrient glycerin agar-agar were inoculated by smearing the blood upon the surface of the culture-medium with a sterilized platinum-wire needle. These tubes were placed in the incubator for twenty-four hours; they then showed a growth of isolated colonies differing in size and color, a pin-point pearly growth being very plentiful. From the different colonies on these tubes a series of Petri plates, four in number, was made, and from single colonies on these plates tubes were inoculated, and pure cultures obtained. By their growth on different media, and by microscopic examination of cover-slip preparations, these proved to be the streptococcus erysipelatis, the staphyloccus pyogenes aureus, and a nondescript bacillus

EXPERIMENT II.—Inoculations were made from the ointment by smearing fifteen tubes of glycerin agar-agar with it, using the amount taken up in a looped platinum wire for each tube. Mixed growths were found on twelve tubes after exposure to a temperature of 37° C. for twenty-four hours. Petri plates were made as before, and from single colonies pure cultures of a streptococcus and the bacillus pyogenes fluorescens were obtained.

Macroscopic comparison was then made of the streptococci obtained from these two sources, regarding their growth on different media and their reactions. Two sets of tubes of the different kinds of media were inoculated, the one with the streptococcus from the child, the other with that from the ointment. The inoculations were made in the same hour and kept in the incubator an equal length of time. The streptococci from both sources were found to be identical in every respect, and we feel justified in thinking the streptococcus in the ointment to be the streptococcus erysipelatis. It presented the following characteristics:

On Petri plates of ordinary nutrient agar-agar, glycerin agar-agar, and gelatin, pin-point, pearly-white colonies are found, which under a low power of the microscope are round, finely granular, of a yellowish-brown color, with even edges. Smears on agar-agar, glycerin-agar and gelatin, show macroscopically a delicate, pearly growth, with many isolated colonies, growing most luxuriantly on glycerin agar-agar, and least on gelatin. They do not liquefy gelatin. On potato the growth is invisible, but after a short time there is an increase of moisture about the point at which the organisms were deposited. In neutral or slightly alkaline litmus milk it causes a very faint pink color in twenty-four hours; this change in color is not due, apparently, to any production of acid, as the reaction of the milk, even when this color is present, is shown by litmus and curcuma paper to be slightly alkaline,

and remains so for several weeks. In none of a number of experiments bearing on this point was there any coagulation of the milk, or any deviation from the change in the reaction described. In deep stab-cultures (8 cm. deep) there is a growth along the entire track of the needle, as well as upon the surface. This growth is most luxuriant at the temperature of the incubator, 37° C., and also develops, but less rapidly, at ordinary room-temperature. This organism stains readily with the ordinary anilin dyes.

Microscopic examination of fresh cultures, especially in bouillon, show the cocci arranged in long chains. Similar long chains are also to be found in blood-serum cultures; upon other solid media chains are likewise to be found, but they are usually shorter.

EXPERIMENT III.—Experiments upon animals gave the following results:

Two rabbits were inoculated, one intra-venously, the other by scarification on the ear, with pure cultures of the streptococcus of the fifth generation. An area of slight inflammation found at the point of inoculation on the third day soon disappeared, and no further result was obtained. Two rabbits were again inoculated in the same manner with a culture of the first generation. The experiment proved negative.

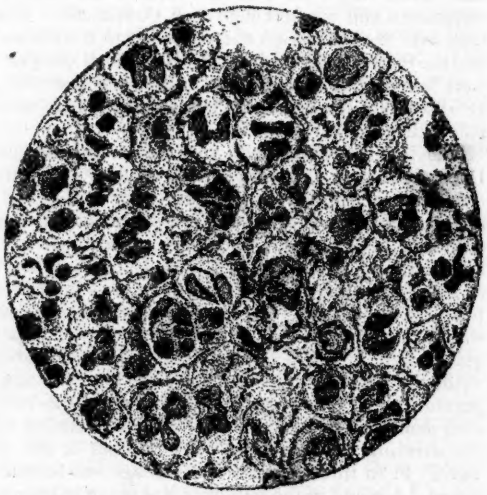
EXPERIMENT IV.—To determine whether the ointment was free from bacteria when procured, the outer portion was removed, and from the deep part ten tubes of glycerin agar-agar were inoculated as before. The tubes were inoculated December 1st, and have remained sterile up to the present time (January 15th).

EXPERIMENT V.—To prove that the bacteria would live in the ointment, test-tubes containing ointment were sterilized for two hours, the ointment allowed to harden in slants, and inoculated with the streptococcus erysipelatis, the staphylococcus pyogenes aureus, and the bacillus pyogenes fluorescens, the cultures used being of the fifth generation from the patient. From these tubes inoculations on glycerin agar-agar were made every third day, and cultures of the organisms introduced obtained for twenty-one days. Cultures of streptococci were obtained from the box of ointment for forty days, and the bacillus pyogenes fluorescens is still easily obtained after sixty days.

EXPERIMENT VI.—In the first stages of the broncho-pneumonia, tubes were inoculated from the sputum. The staphylococcus pyogenes aureus was obtained, but the streptococcus, if present, was not found.

EXPERIMENT VII.—After the twelfth abscess, tubes of glycerin agar-agar were inoculated with blood taken at a point farthest from any abscess; no growths were obtained. Tubes were then inoculated with blood taken from near an enlarged gland, and colonies of the streptococcus appeared in twenty-four hours. Cover-slip preparations of blood from the same point showed a very few diplococci and marked leukocytosis.

The pus from the first abscess was examined microscopically. A stained cover-slip preparation (Löffler's blue) showed streptococci in short and in long entwined chains, and, throughout the specimen, solitary scattered diplococci. Some of the leukocytes contained short and entwined chains of streptococci, as shown in accompanying illustration. The cells were mostly polynuclear leukocytes, some of which showed various stages of nuclear division. A few cells contained small stained granules of a purplish tint. No other bacteria were found by using different stains, and from Petri plates inoculated with pus only pure cultures of streptococci were obtained. The pus from each large abscess was tested in the same manner with the following result: Pure streptococci were obtained in every case, with one exception, in which a skin coccus, the staphylococcus epidermidis albus, was isolated.



SUMMARY.—The points of interest in studying this case are the following:

1. That bacteria were conveyed from one person to another through the intermediation of an ointment.

2. That the streptococcus erysipelatis lived forty days in an ointment.

3. That streptococci taken directly from the point of suppuration lived longer in ointment than those which had passed through several generations on media.

4. A typical case of erysipelas genitalium, having been caused by a streptococcus from a suppurating gland, with no known preceding lesion, tends to confirm the opinion that the streptococcus pyogenes and the streptococcus erysipelatis are identical.

5. Streptococci were found in the blood.

6. The necessity of antisepsis, even in pyemia, is shown by this case. The abscesses were due to streptococci only, and precautions were necessary to prevent mixed infection by the introduction of

the staphylococcus pyogenes aureus found in the skin and sputum.

NOTE.—The condition of the child at the time of writing points to recovery. The fourteenth abscess has just been lanced. Those that have formed within the past two or three weeks have matured slowly, and the child has gained in flesh and strength. The digestion, which has been fairly satisfactory during the entire sickness, is good. Anticipating a fatal issue, promise of autopsy was obtained, and should death finally occur, a protocol of the autopsy will be added to this article.

In conclusion the writer extends thanks to Dr. A. C. Abbott and Dr. A. A. Ghriskey for direction and verification of work.

## ORIGINAL ADDRESS.

### MEDICAL SOCIETY OF THE STATE OF NEW YORK.

*The Inaugural Address of the President, delivered at the Eighty-seventh Annual Meeting, February 7, 1893.*[1]

BY L. S. PILCHER, M.D.

*Members of the Medical Society of the State of New York:*

THE people of this Commonwealth, by the act of their representatives in the Legislature of 1806, constituted this Society the legal representative of the medical profession of the State, provided for the organization of the practitioners of the State into county medical societies, and by a later enactment made it the duty of every physician to join the medical society of his county. To these societies were committed important functions pertaining to the licensing of medical practitioners and to the regulation of the practice of physic and surgery, while they affiliated with and were subordinated to the State Medical Society.

With the lapse of years the development of new conditions of society, of education, and of practice, brought from time to time modifications in the duties presumably required of these medical corporations. The function of supervising the qualifications of those who should desire to practise physic and surgery in the State of New York was virtually abrogated by the law of 1844, which threw open the privileges of medical practice to all men who could protect themselves from suits for damages due to malpractice, from ignorance, or immoral conduct in their practice. The Legislature of 1857 gave legal status to practitioners of homeopathic medicine by incorporating them into State and county societies, and likewise in 1865 the eclectic practitioners were given a similar legal status.

In 1874, 1880, and 1887 statutes were enacted by the several Legislatures of those years, regulating and defining the status of the medical practitioners in the State, by which the prerogatives of the State and county medical societies were less prominently acknowledged, and the importance of chartered medical colleges was more clearly recognized. Nevertheless, throughout the whole of this long period of eighty-seven years the State of New York has never ceased to recognize the dignity and importance of the Medical Society which it created in 1806 as the proper representative and exponent of rational medicine within its borders. This Society has ever been unceasing in its efforts for the public welfare, for raising the standard of medical character. By virtue of its representative character, of the loftiness of its aims, and the personal dignity and worth of its members, its influence for good in this Commonwealth has never been measured or restricted by the legal regulations or stipulations that may have bound it at any period of its history. It has, furthermore, continually used its influence to elevate the status of medical education and practice throughout the country at large. During the early years of its history it was active in securing common action among the medical colleges of the United States in improving the character and extent of the teaching in those institutions; later, it inaugurated and carried to a successful issue the movement for organizing an American Medical Association; and in the more recent past, it did not hesitate to declare that with the changing conditions of knowledge, of education, of legislative enactments, and of social conditions, it was desirable that the medical profession should emancipate itself from certain paternal restrictions that it had inherited from the conditions of a previous generation, and to formally take action giving a large liberty of personal judgment upon ethical questions to all who acknowledged its authority. It thus placed itself again in the forefront of a reform the effects of which have spread far beyond the limits of the State within which this Society has any jurisdiction.

In the immediate present, the Commonwealth has again intrusted to this Society the important duty of supervising the qualifications of all who may hereafter desire to practise rational physic or surgery within the State of New York, by the recent law constituting a medical Board of Examiners, whose members shall be nominated by this Society, and to whom, thus representing this Society, and being accountable to it for their work, is committed the prerogative of fixing the standard of educational qualifications to which every future practitioner of rational medicine in this State shall attain before receiving license to practise.

Your President has taken pains during the past year to acquaint himself with the condition of the medical profession throughout the State. The estimated number of practitioners is 10,000; the estimated population is 6,000,000—or one physician to every 600 of population; of these 10,000, about 8000 are practitioners of rational medicine, 1300 of homeopathic medicine, 400 of vegetable medicine, and the remaining 300 represent many kinds of medical theories.

The number of schools devoted to undergraduate instruction in rational medicine is 9: of these, 2 are in the city of Buffalo, 1 in the city of Syracuse, 1 in Albany, 1 in Brooklyn, and 4 in New York City. 2096 students are at the present time under instruction in these schools: 128 in Buffalo, 58 in Syracuse, 170 in Albany, 201 in Brooklyn, and 1539 in New York City.

The number of schools in the State of New York de-

[1] The exigencies of our space do not permit us to publish this able address in full, but we reproduce all that pertains to general or national medical questions.—ED. NEWS.

voted to post-graduate instruction is 2, both in New York City. During the past year the number of matriculants at these two schools has aggregated 819.

The number of students in the medical schools in this State is especially significant from the fact that the entrance into these schools is guarded by a preliminary examination prescribed by the State and conducted, not by the officials of the schools, but by the Board of Regents of the University of the State—an examination which is not a mere form, but is sufficient to insure that intending students of medicine shall already possess a fair general education before beginning their technical studies. It is still more significant from the fact that the diplomas of these schools no longer confer the right to practise medicine in the State of New York, and have value only as the thoroughness and comprehensiveness of the instruction to which they testify are acknowledged by public opinion. The laws of the State now require that all who hereafter enter upon the practice of physic or surgery in this State shall have attended three full courses of lectures, and all the medical schools of the State now require the same amount of attendance upon lectures before the granting of a diploma, while the general influence of these teaching bodies is to encourage their students to extend their periods of lecture-attendance to four years. The influence of the present conditions that attend medical education in this State is very healthful, in that every teaching corporation is directly stimulated to improve its methods and facilities for teaching, that thereby students may be attracted to its halls.

An examination of the curriculum and the published statement of each of the schools of this State, supplemented in some instances by additional statements from the dean, shows that much has been done already, and more is contemplated in the immediate future, toward securing proper gradation of studies, division of students into small sections under tutorial supervision, systematic text-books and laboratory drill, and adequate personal contact of the students with patients in dispensary and hospital classes. The present law of the State with regard to the supply of anatomic material is fairly liberal, and an enlightened public opinion has sustained its practical application whenever it has been brought into question. Laboratories of histology and pathology have been furnished and equipped in connection with all the schools, and in New York and Brooklyn elaborately planned and fully endowed institutions for these departments of instruction exist, in which not only the instruction of students is provided for, but every facility and encouragement for original work is furnished, not only to their staff of instructors, but to any member of the medical profession.

The department of practical obstetrics presents conditions of special difficulty in American communities for organization so as to give the needed amount of practical demonstrative teaching to students. Appreciating this, and thinking that this one department might be taken as a fair index of the average character of the instruction that was being given in the medical schools of the State, I addressed to each of them an inquiry as to the amount of practical experience in midwifery required by each of the students before graduation, stating that I intended to present the information thus obtained to this Society. The following are the answers received:

*Medical Department of Niagara University:* Each student attends from five to ten cases before graduation.

*Medical Department of the University of Buffalo:* Each student is required to attend at least two cases.

*Medical Department, Syracuse University:* At least one case must be attended; usually from two to four are given.

*Albany Medical College:* Provision is made to enable members of the senior class to attend one or more cases of obstetrics.

*Long Island College Hospital:* All obstetric cases in this hospital and in Kings County Hospital are used for clinical instruction. Six students in the former and three in the latter attend each labor. The number of labors attended by each student has varied from five to fifteen.

*Woman's Medical College of the New York Infirmary:* Each student is required to attend ten cases.

*Bellevue Hospital Medical College:* Each student is recommended to have a two-weeks course at the Midwifery Dispensary, during which he attends at least six cases of labor, but this is not obligatory.

*Medical Department, Columbia College:* Every student is required to attend the Sloane Maternity for one week, day and night; to examine all cases and to be present at all confinements.

*Medical Department, University of the City of New York:* Students who desire it may secure attendance in the lying-in service of the Midwifery Dispensary for periods of two weeks or more; this is not obligatory.

From these replies it is evident that much progress is being made in this most important department of medical instruction. It appears, however, that in at least two of the largest schools in this State it is still possible for students to receive the degree of Doctor of Medicine without ever having seen a case of labor. I know that it is the desire of the authorities of these schools that at the earliest practicable moment this reproach should be removed, and I submit that it is a proper thing for the Medical Society of the State of New York to use its influence in promoting this end. For this purpose I would recommend that this Society formally request the Regents of the University of the State to decree that an essential requirement for admission to an examination in obstetrics by the State Board of Medical Examiners shall be that the candidate certify to having attended at least three cases of labor.

Time does not permit me to further analyze the methods of medical education now prevalent in this State. I think, however, that all the facts warrant the statement that positive improvement in every direction is constantly being effected, that it has already attained a breadth and thoroughness and practical value that compel the confidence of an enlightened public, and that wherever deficiencies or occasions for adverse criticism still exist, they will gradually be removed with the lapse of time; they are the faults of youth, the results of the absence of governmental control and endowment, the effects of the spirit of individualism which is at once our pride and our weakness. It will ever remain the duty of this Society to point out the way of improvement and to give form to the public and professional opinion that must precede each advance step.

*The State Board of Medical Examiners.* The work of this Board may now be considered as fully inaugu-

rated. The time during which any persons desiring to practise medicine in this State were exempt from examination by this Board has now elapsed, and at the present time the only gateway to the legal practice of medicine in this State is examination by this Board. I am not aware that the two years of testing to which this law has been subjected has shown it to possess any objectionable features, while its influence is acknowledged by all to have been beneficent. Up to the first of December last, 90 candidates had been examined by the Board representing this Society, of whom 80 had been accepted; 10 by the Board representing the Homeopathic Medical State Society, of whom 5 were accepted; and 5 by the Board representing the Eclectic State Medical Society, of whom 2 were accepted. When it is remembered that these were all subjected to the same examination, except in the department of therapeutics, it illustrates the direct effect of the bill on the public welfare—since, while it caused the rejection of 11 per cent. of the candidates from the schools of rational medicine, it caused the rejection of 50 per cent. and 60 per cent. of the candidates from schools of sectarian medicine. The inevitable result of the continuance of the work of this Board will be to greatly improve the general standard of medical education in this State. It is certain, also, to excite the antagonism of those whose pretensions are put in so bad a light by its workings. It behooves every intelligent and public-spirited citizen to protest on every proper occasion against any modification of the existing law which shall weaken its force or efficiency in any way. It would be proper for this Society at this time to adopt a resolution expressing satisfaction with the law as it now stands, and requesting that the Legislature decline to permit any modification of its provisions, for the present at least, and instructing its Committee on Legislation to be vigilant in guarding this law against amendment or attack. I accordingly recommend such action to the Society.

*The American Medical Association.* I have the pleasure of presenting to the Society at this time a communication from Dr. Wm. B. Atkinson, permanent Secretary of the American Medical Association, transmitting a resolution adopted by that Association at its session held in Detroit, June, 1892, appointing a committee of five, instructed to meet a like committee from the State Medical Society of New York, and the State Medical Association of New York, for the purpose of adjusting all questions of eligibility of members of the State Medical Society of New York to membership in that Association, and notifying this Society that the committee in question had been appointed, consisting of Drs. N. S. Davis, of Illinois; John H. Rauch, of Illinois; Wm. T. Briggs, of Tennessee; Dudley S. Reynolds, of Kentucky, and Willis P. King, of Missouri.

The evident intention of this resolution was to request that this Society appoint a similar committee to confer with the committee named, although the resolution as transmitted does not say so. It is difficult to see what purpose such a conference as is proposed could serve. The American Medical Association is very properly its own judge of what shall be the qualifications required of its members. It is a voluntary association, responsible to no one, and may change its standard for admission at its will. At its session in St. Paul, in June, 1882, it voted that the Medical Society of the State of New York was not entitled to representation in it because the Code of Ethics adopted by that Society essentially differed from and was in conflict with the Code of Ethics of the American Medical Association. The status of affairs to-day differs in no respect from what prevailed in 1882, save that a year or two later the American Medical Association adopted an explanatory declaration which practically interpreted its own code to mean the same as the code already adopted by the Medical Society of the State of New York. It did not, however, rescind the vote of disfellowship adopted in 1882, but on the contrary, at the recent meeting in Detroit, renewed it, and extended it to embrace not only this Society as an organization, but also all persons who affiliated with it. At this same meeting, also, it appointed a committee to report upon the revision of its own Code of Ethics. There is, therefore, no certainty as to what the future Code of Ethics of the American Medical Association will be. It would be highly improper for the Medical Society of the State of New York to assume in any way to dictate to, or even suggest to any organization not subordinate to it, what ethical standard, if any, such an organization should adopt. It must content itself with regulating its own standards, as it now does, suggesting in turn that it is equally indelicate for organizations that have no supervising relation to it, to extend advice as to its internal affairs. Practically, the relations of the Medical Society of the State of New York to the American Medical Association are the same as those which it sustains to the British Medical Association, the Canadian and Ontario Medical Associations, and to the medical societies of the various adjacent States to which it is in the habit of sending delegates annually, viz.: the relations of courtesy and comity. All of these medical organizations named continue to receive with due honor and respect the delegates appointed by this Society, and, doubtless, whenever the American Medical Association shall signify its desire that this Society shall again send delegates to its meetings, such delegates will be sent. The Medical Society of the State of New York, however, must meanwhile be content to do its own work in its own way, awaiting the pleasure of the Association in question. Nevertheless, since a failure by this Society to appoint such a committee as is contemplated in the communication from the American Medical Association would doubtless be construed by many, who are still ignorant of the real relations that exist between the two organizations, as displaying a factious and quarrelsome spirit, and as a matter of simple professional comity I would advise that a committee of five be appointed by this Society to meet the committee of the American Medical Association as requested.

*The Code of Ethics.* In the course of the discussions which have been provoked by the action of the American Medical Association just alluded to, it has come to the knowledge of your President that many of the physicians of this State are convinced that, in view of the present state of general enlightenment prevailing throughout the State of New York, and the safeguards which by legal enactments are thrown about the entrance into the medical profession, it would comport more with the dignity of the medical profession, and would enhance the respect in which it is held by the general public if all

specific rules of ethical conduct were elided from the By-laws of the State Medical Society, and if the regulation of such matters were hereafter left to the judgment of individual practitioners influenced by the well-known consensus of professional opinion and local custom in the places where the work of each is being carried out. Among a large number of representative physicians from all portions of the State with whom I have conferred on this point, I have found a singular unanimity of feeling on this subject. The only hesitancy which any have expressed has been as to whether it would be wise, since practically this is already the present status of the profession in this State, to make any movement looking to a formal elision of a code from our By-laws, lest it should revive acrimonious discussion, and reawaken strife that would be detrimental to the higher interests of the profession in this State. By far the greater weight of the opinions which I have been able to elicit has, however, been that no such result would follow, but that, on the contrary, such action would tend still more to heal old differences and bring together all the elements of the medical profession in this State. Such is also my own mature opinion; and, further, it has seemed to me that at present, when there is a general revival of interest in the matter of professional ethics—as is evidenced by the discussions which are now going on in the medical journals of the country—and when this question of code is again unavoidably brought to the attention of this Society, it is a specially favorable moment for taking this final step. At the present time the only allusion in the By-laws of this Society to a system of medical ethics is the very brief Section 8 of Chapter VI, which merely says:

"The system of medical ethics adopted by this Society, February 7, 1882, shall be considered authoritative to govern the medical profession in the State of New York."

I would recommend that this section be dropped *in toto*. The effect of such action would be to leave this State Society without any formulated Code of Ethics, and to relegate the code of 1882, together with those of 1847 and 1823, to the domain of history, though ever remaining of interest and value to the student of the development of ethical standards in the medical profession of this State.

*A National Quarantine.* Prominent in the thoughts of both physicians and people at this time are considerations as to safeguards against the invasion of this country by cholera, the danger of which all the lessons of the past warn us is imminent. Action has already been taken by many of the county societies of this State urging upon Congress the enactment of comprehensive laws establishing the national regulation of quarantine. Doubtless at an early period in this meeting this subject will engage the attention of this Society and will receive thorough consideration at your hands.

It is to be hoped that Congress will not be satisfied with hasty legislation intended only to meet a present emergency, but that it will forthwith institute a committee of inquiry that shall thoroughly investigate and consider all matters pertaining to national sanitation, which shall mature a report that shall result in the enactment of permanent and comprehensive laws in this department of the public welfare.

# ORIGINAL LECTURE.

## RELAPSES OF TYPHOID FEVER.

*Part of a Clinical Lecture, delivered at the Pennsylvania Hospital, January 14, 1893.*

BY PROF. J. M. DA COSTA, M.D., LL.D.

[Reported for THE MEDICAL NEWS.]

GENTLEMEN: The next case to be brought before you this morning is one of relapse of typhoid fever. Now, gentlemen, relapses following typhoid fever are in themselves an interesting study. They are of interest, in the first place, because you can never know in a case of typhoid fever when a relapse may happen; there is nothing to distinguish the cases from other cases until after the beginning of the relapse. They are of interest, again, because the relapse gives us symptoms somewhat different from those of the original attack. They are also interesting from the fact that the causes of these relapses are exceedingly difficult to understand, and of great importance to study. Therefore, besides their clinical interest, they possess a pathologic interest which is inexhaustible.

Now, to prove to you the character of this case, before we examine into his condition this morning, I shall briefly indicate the principal points in his clinical history. He is a young man, nineteen years of age, admitted on the 13th of December, suffering with typhoid fever. He stated that previous to his admission he had been ill for about twenty days. I do not know that this is altogether true. By this I mean that he was not in a condition, when admitted, to give a very clear account of his previous history.

What makes me doubt the statement that he had been suffering with typhoid fever for three weeks is the temperature-record that has been kept since his admission. It begins with 104° F. on the afternoon that he was brought here; it remains very high, or in the neighborhood of 104° for three days; it then commences to zigzag, with rather a high evening temperature (103.1°) until we find it down one morning to 99.5°. This low temperature, it is noted, followed free cold sponging, and was only temporary, for it again rose to 102° in the evening. This is the temperature-record of the first week, or a little beyond. In the second week we notice the same continued fever-temperature, which, though still above the normal, does not exceed 102°; and so it goes on into the third week, when, slowly and with considerable variation between higher evening than morning temperatures, it descends to normal. On the 24th of December, he is free from fever. This is the temperature-chart, or fever-record, of the man while under treatment in the hospital; this is what makes me doubt that he had been sick for twenty days before coming here. He has probably included his prodromic symptoms in the time of his actual illness, which probably had only existed for four or five days prior to admission, judging from the subsequent course of the fever.

With regard to the original attack of typhoid, I merely observe that it was not accompanied by anything decidedly out of the way. He had very little intestinal disturbance; if anything, the attack was marked by its

freedom from such disorder, as the bowel-movements were not frequent, not more than two or, at most, three in a day. There were very few spots; very little tympany—in truth, the case was regarded as a mild one; he was never delirious, and slept well at night; there were no marked nervous symptoms.

Now, gentlemen, I have brought this man before you this morning to show what has occurred since the 24th of December, when he had a normal temperature and was convalescent. The temperature was even subnormal during the following week, for the morning observations are from 97° to 98°, with slight evening rise, which is common after typhoid fever. So it goes on until the 8th of January—six days ago—when the morning temperature was 98.6°, and the evening temperature 103°. On the next morning, it goes down only a little over half a degree (102.4°), and then, on the second day of this relapse, his evening temperature is 105.4°. Here is the record which is so significant! Observe the normal, or slightly subnormal, temperature for two weeks, then this marked rise. Now mark the course afterward. The morning after this exacerbation the temperature goes down to 100°, largely as a result, I believe, of a cold bath and repeated sponging with water under the care of our attentive nurses; but it does not stay down; it goes up the next evening to 103°, yet by repeated cold spongings it was reduced again to 100°. After this there is a solitary rise to 103°, but in the main the temperature is kept down by continuing these cold applications, and by another plunge-bath.

Now, you wish to know something about the other symptoms. When the relapse began he had epistaxis of two or three days' duration. His mind was quite as clear as during the original attack, although his temperature was above 105°. He complained, it is true, of some headache, which lasted two days and occurred at the same time as the epistaxis; but there was no delirium, no restlessness, no jerking of the tendons.

Having shown you the temperature-record and having noted the absence of nervous phenomena during the relapse, we turn to the intestinal symptoms. What were the intestinal lesions, as interpreted by the symptoms? He had three or four loose movements during the day, more, you observe, than during the original attack. His tongue has been slightly coated and dry; it is a little cracked at the edges and tip. There have hitherto not been any spots noticed, but I observe one or two rose-spots upon the abdomen to-day, which have appeared since yesterday. In his first attack he did not have many spots, and, in truth, after the first day or two we found no spots. These that we see here have, as stated, just appeared. It is true that a general duskiness of the skin makes this case unfavorable for the detection of the characteristic spots, but careful inspection failed to detect them until this morning.

To complete these notes, I will add that he has also some enlargement of the spleen; the splenic dulness begins a full finger's-breadth below the ribs. He has no albumin in his urine. Upon auscultation we find a very short, almost inaudible first sound and a very sharply defined second sound, but without murmurs.

These are the symptoms, gentlemen, in this case of relapse. Now, I shall proceed to the interpretation of these phenomena, by pointing out the symptoms that indicate a relapse of typhoid fever; and, on the other hand, the difference between the symptoms of the relapse and those of the first attack.

The most marked symptom, in the first place, is the temperature. In typhoid fever the characteristic feature is the course of the fever, the gradual ascent of the temperature during the first week, with the evening rise and the morning remission, but each evening higher than the previous day, until the fever reaches its highest point in the second week. This feature is not shown in the relapse. We have seen that the morning temperature of January 8th was 98.4°; in the evening it was 102.4°; then with this morning remission of half a degree, in the evening of the second day we have the highest temperature that has been attained in the case, 105°. This is entirely unlike the history of ordinary typhoid fever. A peculiar feature of the relapse, thus, is the rapid ascent of the temperature. In this case, I repeat, it attained, on the second day of the relapse, the highest point that it had reached in the whole course of the disease. Subsequently, instead of descending by degrees, as in an ordinary attack, it descends rather abruptly, and has no regularity in its return to the normal.

Then we have the re-development of the intestinal symptoms; the enlargement of the spleen; the reappearance of the spots. In reference to these spots, I would say that their appearance so late as the sixth day of the relapse is not common. They are usually an early symptom, coming out on the second or third day. In the original disease, you know that from the seventh to the ninth day is the usual time for the eruption of these rose-colored spots. In this case the relapse does not differ so much as in other cases, for very generally in relapses of typhoid fever the spots appear much earlier than in the original attack, and this furnishes a diagnostic point.

The nails will hereafter show a distinct ridge of altered nutrition to mark this relapse, but at present they show nothing, except a loss of natural polish. The appearance of a ridge upon the nail, as the result of the attack of typhoid fever, will be followed by a second ridge, indicating the occurrence of the relapse. I will bring him again before you after a few weeks, and you will then be able to distinguish these marks of the disease through which he has recently passed, and from which he is convalescing.

It may be asked, "Is there danger in these relapses?" Do the intestinal lesions or typhoid ulcers break out afresh? Yes, we may have fresh ulceration and hemorrhage, which may be fatal; but it is a curious circumstance that the intestinal lesions that are developed during the relapse run a much more rapid course (just as the fever runs a much more rapid course) than in the primary outbreak. As a rule, however, the intestinal symptoms are less grave. The duration of the relapse is usually about nine days, while that of the first attack is three or four weeks. The ulcers run a more rapid course, and cicatrize earlier; therefore, they are not so dangerous as in the original attack of typhoid fever.

Does this relapse end the whole case, or may there be subsequent relapses? Gentlemen, it has been my lot to see two cases, each of which had five relapses; therefore, they survived six attacks of the disease. This

sounds incredible, but I have the temperature-charts that prove it. Both cases are still living. Therefore, relapses are in themselves not necessarily so dangerous to life as one might think. It is bad fortune, certainly, for a patient to have a number of relapses: a man usually considers himself very unfortunate to have a single attack, and doubly so to have a relapse when he thinks that he is convalescent, and begins to congratulate himself upon his return to health; and he is more unfortunate still to have several.

I want to call your attention particularly to the fact that you may have intestinal hemorrhage in this relapse, and to the importance of being on the look-out for it. The necessity of keeping the patient absolutely at rest, and carefully regulating his diet, will be manifest.

As to the causes of the relapses, they are usually believed to be due to indiscretion in diet; but I am of the opinion that this is not the cause. When I was first visiting physician to this hospital, I always, in these cases of relapse, had the forbidden apple or pie diligently searched for, but I must confess that I rarely found it. Indiscretions in diet will, undoubtedly, cause diarrhea; but they will not cause a return of all the phenomena of typhoid fever. Relapses are not due to indiscretions in diet. To what, then, are they due? I can only offer you a probable explanation. It is supposed that the specific germs of the original attack remain in the intestinal tract, and the patient poisons himself by these germs, and the poisoning may take place several times. This theory of the reappearance of the symptoms after the orignal attack has passed is in harmony with the prevailing ideas, which attribute the causation of typhoid to a specific bacillus, which is present in the intestine during the whole course of the disease, and may persist for an indefinite time after apparent recovery.

As regards the treatment, it is the same as in the original attack. The same regulation of diet (principally or exclusively milk); the same precautions as regards the general management as in ordinary typhoid fever; the same measures to allay irritability and promote an antiseptic condition of the intestines, should be adopted; and in the relapse they are even more essential. In the original attack he took naphthalin, and as he has still some diarrhea, we will resume the naphthalin (gr. ij every three hours). To this will be added a little opium (a teaspoonful of paregoric), when the bowels are too frequently moved. There is nothing to say with reference to the treatment other than would be said about the original attack. The case is instructive as showing the phenomena of relapse coming on without warning during apparent convalescence.

---

***The Treatment of Syphilis.***—Accepting the dictum that in the treatment of syphilis with mercurials it is the mercury that constitutes the active agent, MCNAMARA (*Lancet*, No. 3617, p. 1438) maintains that the best preparation to use is that which in safe, unirritating doses contains the largest proportion of the metal. This indication he has found to be best met by mercury with chalk, of which an adult may take a grain or two grains three times a day, with a grain or more of the powder of ipecac and opium if there be diarrhea. The treatment should be continued for some months.

# CLINICAL MEMORANDA.

## *TWO CASES OF MEMBRANOUS ENTERITIS.*[1]

BY S. SOLIS-COHEN, M.D.,
PROFESSOR OF CLINICAL MEDICINE AND APPLIED THERAPEUTICS IN THE PHILADELPHIA POLYCLINIC; ONE OF THE PHYSICIANS TO THE PHILADELPHIA HOSPITAL.

THE essential clinical feature of the condition best known as croupous enteritis, or membranous enteritis, is the discharge from the bowel of mucoid, fibro-mucoid or fibrinous casts; the essential pathologic feature being, of course, the formation of these casts.

The affection is not common, yet, as Da Costa,[2] in his classic study long ago pointed out, it is hardly one to which the term rare may strictly be applied. I have encountered some half-dozen cases in the course of ten years. Two of these were in young hysterical females, not my patients, whom I saw on a few occasions, in the absence from the city of the attending physicians, and at the request of the latter. One patient was a middle-aged and hysterical woman, who presented herself at the medical clinic of Jefferson Medical College Hospital, during my service as chief assistant; the fourth case was likewise that of a middle-aged and hysterical woman, who applied for treatment at my dispensary service in the Philadelphia Polyclinic. (The early records of this clinic were unfortunately lost or mislaid in moving to the new hospital building, and I have no note of the case except in my index of diagnoses.)

Specimens of the discharge from the two other cases are presented this evening. Both patients are males and the cases present sufficient interest to be placed on record.

CASE I. *Membranous enteritis simulating perityphlitis.*—D. W., thirty-three years old, a blacksmith, was sent to my colleague, Prof. J. M. Baldy, at the Philadelphia Polyclinic, by Dr. G. A. Beck, of Danville, Pa., with a request to place him under the care of a medical clinician; and by Dr. Baldy referred to the medical ward, then under my care, February 29, 1892.

From the letters of Dr. Beck and the notes taken by Drs. Gibbon and Knipe, resident physicians, the following account of the case is condensed.

About three years ago the patient began to suffer with severe pain in the hypogastric and right iliac regions. The pain occurred in paroxysms, lasting at first an hour or two; afterward, with slight intermissions, for several days; the intervals between the attacks varying from about a week to so long as two months; the severity progressively increasing.

No information could be obtained as to the character of the discharges prior to August, 1891. At that time a paroxysm of such severity occurred that it was necessary to administer hypodermatic injections of morphine; and the patient was confined to bed for six weeks. The location of the pain, and a tumefaction observed in the right iliac region, aroused the suspicion of perityphlitis, which, however, the subsequent course of events did not verify.

---

[1] Read before the Philadelphia Pathological Society, January 26, 1892.

[2] Amer. Journ. of the Med. Sciences, October, 1871, p. 325.

There was passed by stool "something resembling the trachea of a chicken, followed in a few days by something much resembling a piece of intestine; each was about three inches in length. There was no fever and but little gastric disturbance; a tendency to constipation was noted." For some time afterward membranous shreds and casts continued to pass, the discharge being preceded by constipation and paroxysms of colic. The stools did not contain blood.

After this attack, dull pain in the iliac region was constant, but not so severe as to prevent sleep. Paroxysms recurred at intervals of from one to six weeks, and lasted with remissions for one or two days. At their height morphine had to be given. With the passage of membrane the pain moderated, and with its disappearance, the pain ceased. The patient continued in robust health; his family and personal history were devoid of pathologic significance.

On admission the patient was a robust, well-nourished man, presenting nothing abnormal to physical exploration. He complained of a dull pain in the right iliac region, which was not sensitive to pressure. He had not had a stool for a few days. An enema of turpentine (f℥j) and magnesium sulphate (℥j) in warm water and soap-suds (Oij) was ordered to be given nightly. The hardened feces, and later the unformed fecal material, thus brought away presented nothing noteworthy.

On March 2, 1892, the patient complained of an increase of pain in the right iliac fossa, which was now sensitive to pressure; and a peculiarly sensitive spot was found in the location known as McBurney's point. There was impairment of resonance over a somewhat irregularly pear-shaped area in the situation of the cecum, and to palpation a sense of doughy induration was given.

On March 4th, at 5 A.M., the patient was awakened by griping pain beginning to the right of the umbilicus and extending into the right iliac region. Somewhat relieved by hot stupes, it persisted until 7 A.M., when, with much straining, a stool was passed, consisting of unformed feces and fragments of mucous and membranous casts. The enemata were continued, but brought away no more membrane, only unformed feces and strings of mucus. Slight tumefaction in the right iliac fossa persisted.

The patient was free from pain for six days, when, at 10 P.M., pain, less severe than on the previous occasion, began, as before, at the umbilicus and radiated into the right groin, causing retraction of the right half of the scrotum. The tumefaction was observed to increase, and the abdominal muscles became tense. In about three hours the paroxysm terminated, with the discharge of a small quantity of softened feces with much more mucus and membrane than in the stool of a week earlier. There was much straining at stool. With the passage of the membrane, abdominal tension relaxed, pain ceased, and the tumefaction became much less marked.

Three days later intermitting attacks of sharp shooting pain occurred for about an hour in the forenoon, and recurred at 3 P.M., lasting for about half an hour, when membrane was passed in a few fragments aggregating two inches by two inches, and the pain ceased. On the following day nothing abnormal could be found on abdominal exploration.

Four days later the membrane presented was passed, without straining, after the enema. It is flat, thick, tough, white; toughness and whiteness having become more marked since placing it for preservation in diluted alcohol. The patient complained of dull pain in the hypogastrium, and of slight vertigo. From this time forward no unpleasant symptom occurred and no membrane was passed. As the patient could not be assured that no attack would occur in the future, he was about two weeks later discharged at his own request.

Drs. Coplin and Bevan examined the membrane passed March 4th and March 10th. They report that "the casts are made up almost entirely of fibrinous exudate in which are found large numbers of leukocytes and epithelial cells. From the mucous surface at some points will be found evidence of the sloughing of the mucous membrane. There are also evidences of young bloodvessels in the membranous casts. In some points hemorrhage has taken place."

These appearances seem to point to the fact that the process is, in part, inflammatory, leading to the formation of a pseudo-membrane, which becomes partially organized and then separates by a superficial necrosis. Whether the tumefaction in the right iliac region was due to obstruction of the cecum or colon by accumulation of the products of desquamation, or whether the seat of the morbid process was thus indicated, I do not pretend to say. The size of the casts, however, would indicate their formation in the small intestine.

CASE II. *Pseudo-membranous enteritis in a lithemic patient presenting symptoms of vasomotor ataxia*—X. Y. Z., an attorney, about thirty-two years old, has suffered for some two years, following a great grief, with symptoms termed by various American and European clinicians of eminence as those of "gastric catarrh," and of "neurasthenia." There are in his case some important features not relevant to the present communication, except that they indicate a highly neurotic constitution. When I saw him some four months ago, he was much emaciated, obstinately constipated, passing small quantities of urine of high specific gravity, containing uric acid, urates, phosphates, and oxalates in excess, red blood-cells, no albumin, no sugar. This oliguria was doubtless due to the dry diet advised by a former attendant, as it soon disappeared when a normal quantity of water was taken; though the uric acid, urates, oxalates, and hemocytes did not disappear until appropriate treatment had been continued for some time.

The man's sickness began with frequent attacks of vertigo, which had incapacitated him for the duties of his profession; his circulation was poor, so that hands and feet were almost constantly cold; and just before one of his "spells" the lips and nails became blue, the skin of hands and face pallid. I was summoned while he was suffering with a paroxysm of abdominal distress which he said could not be called "pain" or "colic," though he knew no other term by which to describe it. It had ceased when I first saw him, about two hours later.

I cannot say what excited the suspicion of membranous enteritis; probably it was the hypochondriasis, the constipation, and the evident intestinal spasm. At all events, failing to elicit a history of the passage of casts, the patient was asked to observe his stools; nightly

enemata of warm water with soap, salt, and turpentine, being prescribed together with other treatment.

For some two weeks nothing was found in the stools except ordinary mucus; then on one occasion membranous shreds were discovered after an enema, but were not saved; some days later, a mucous cast, fully eighteen inches in length and about three-eighths of an inch in diameter, was passed; the patient being under the impression that it was a worm, which, indeed, to the untrained eye it resembled. It was composed of semi-translucent, whitish, gelatinous material, manipulable with difficulty, showing no structure under the microscope, except that it contained a few small round cells, lymphoid in appearance; it dissolved readily in alkalies. I regret that its coagulability with acid was not tested.

About a week or ten days later the membrane exhibited was passed. Similar discharges, gradually lessening in quantity and frequency, continued to be observed at intervals for about three weeks. There has been none discovered for more than five weeks past.

Unlike all other cases that I have observed, in this instance these matters were found in ordinary, well-formed stools, that were passed without straining and spontaneously; the discharges were not preceded by colicky attacks or pain of any kind; for the patient's general condition is steadily improving under treatment, so that he is not constipated, is much less hypochondriacal, not at all neurasthenic, eats well, sleeps well, attends to his office and court practice, and has had but two vertiginous spells since coming under my observation.

In this case I think we have a much earlier stage of the affection than any that I have previously encountered, or of which I have read the report. The diagnosis made as to the patient's general condition is lithemia, vasomotor ataxia, gastro-intestinal catarrh, with marked intestinal indigestion. The membranous enteritis I am inclined to look upon as a sequel to the intestinal catarrh, conditioned by the disturbed state of the trophic and vascular system.

The fact that hysteria or hypochondriasis is almost invariably associated with the condition, lends color to the theory that it is literally a trophopathy of neurotic origin, and its most probable mechanism is disturbed vascularization. Even in the other case I have reported in which inflammation probably exists, the paroxysmal occurrence of the attacks indicates a neurotic element.

Bacteriologic investigation was instituted by Dr. Coplin, but his results were not decisive, probably owing to the contaminated state in which the discharges reached him. I am not inclined, however, to regard the condition as in any particular due to microbes. Ordinary intestinal irritation or catarrhal inflammation is its probable starting-point, a neurotic constitution its determining factor.

---

***The American Electro-Therapeutic Association*** will hold its third annual meeting at Chicago on September 12, 13, and 14, 1893. A cordial invitation to be present is extended to all members of the profession interested in electro-therapeutics.

## *POISONING FROM THE USE OF ENEMATA OF CARBOLIC ACID FOR THE EXPULSION OF OXYURES VERMICULARES.*

BY J. A. HAWKINS, M.D.,
OF PITTSBURG, PA.

A MAN recently came to me complaining of pruritus ani, due to seat-worms (oxyures vermiculares.) As I had treated him for the same condition several months previously, I instructed him to use the injection that I had then recommended—a solution of carbolic acid, twenty grains to a quart of water. He stated that his wife and his ten-year-old child were similarly affected, not having been completely cured by the treatment employed. He was instructed to try a solution of the acid again, using, however, a small teaspoonful to the quart of water instead of the twenty-grain solution, and also to expel it at once from the bowel.

Several hours later, on my return from a professional call, I found the man awaiting my coming. He seemed very much excited and told me that he had left the acid with his wife and had then gone out; on his return he found her sitting on the commode. He spoke to her, and she succeeded in answering in but a very incoherent manner. On inquiring as to what was the matter, she answered that she "did not know." The man then became alarmed and went for me. When I arrived I found the woman sitting in a chair in which she had been placed by a neighbor. She seemed rational, and stated that she remembered nothing from the time that she took the enema until she was placed in the chair. She did not recall her husband speaking to her, or, in fact, that he had been in the house. She had given her ten-year-old daughter an enema, but we found the girl asleep, and on being awakened she stated that she felt all right.

I suspected that the drug had occasioned toxic symptoms, but as the woman was of an hysterical temperament and as the menstrual period was expected in a day or two, I found myself between two fires and concluded to try the injection on myself. At five minutes of twelve o'clock, midnight, I injected into my bowel one quart of water, containing in solution two teaspoonfuls of carbolic acid. I sat down in my chair and watched the clock, intending, if any alarming symptoms should arise, to expel the fluid. I noticed the clock strike twelve, and then my ears began to buzz and I became dizzy. The tinnitus aurium produced by quinine was slight in comparison. This is all I remember until I awoke in bed at three o'clock in the morning, undressed and with my clothing in its accustomed place. My mind was a blank from two minutes past twelve o'clock until three o'clock. My wife stated that I had came upstairs some time in the morning and had tried the door (which she had locked when I was called out), and when she opened it I made some remark in a rambling way; that my conduct seemed strange, and that my eyes had a peculiar look about them; that I retired without saying anything further, and had apparently fallen asleep immediately. My mind now was perfectly clear. I remembered taking the enema and recalled the buzzing, and that is all. I knew not if I had turned out the lights or how or when I retired; so I dressed and went down stairs to investigate. I

found that I had slacked my fires, turned out all the lights, lit my night-lamp in the office, and had apparently gone to the closet, as I remembered how it looked before taking the enema, and it was differently arranged when I now entered. I am positive that I expelled the solution before retiring.

I do not recall, nor can I find, that symptoms of carbolic-acid intoxication like the foregoing have been reported; but as similar manifestations were produced in two different individuals, I cannot explain the phenomena otherwise than that they resulted from the acid. I did not notice any great change in the urine such as is usually mentioned; and as to the odor—well, I can still imagine I smell carbolic acid.

In the case of my patient absorption must have been very rapid, as she states that she evacuated the contents of the bowel at once; but I really doubt this, as in my own case there was no knowledge of time by which one would know how long the fluid was retained. There was not the least sensation of burning or stinging imparted during the injection, but the parts felt sore, or as if there was an external hemorrhoid present, for several days thereafter.

Prof. R. Köhler (Wood, 7th edition, p. 604) mentions the cases of two joiners who had applied externally half an ounce of carbolic acid in solution for scabies, with similar symptoms. One was found dead; his fellow suffered from unconsciousness and drunken delirium, ending in restless sleep.

In my own case, there was the dizziness and the unconsciousness, and, in addition, very pronounced tinnitus aurium and apparently sound sleep, as I felt as though I had slept all night when I awoke at 3 A.M.

This experience has taught me that carbolic acid is a more dangerous drug than is by some supposed, and that it should be used with great circumspection if a large surface is to be exposed to it, as in case of pruritus, etc.

From the rapidity of absorption in these cases, it can readily be seen to what purpose the bowel may be used for the administration of nourishment and medication.

810 PENN AVENUE.

## THE TREATMENT OF CARBUNCLE.

BY W. M. CAPP, M.D.,
OF PHILADELPHIA.

IN treating a case of carbuncle recently, excellent results were obtained by a strict observance of antiseptic principles. The patient was well advanced in years, of spare habit, nervous temperament, and subject to attacks of acute dyspepsia. He was engrossed in pressing affairs of business, which kept his life more or less on a continuous strain. The condition was aggravated by the oppressive and moist heat of summer weather. When first seen, there was an area of induration and inflammation, fully half as large as the palm of a man's hand, upon the back of the neck, deeply seated, to the left of the vertebral column. At the center of the swelling was one small opening, with a discharge of pus at about a point where the edge of the collar might have set up an irritation. There was no complaint about the general health, but inquiries developed a recent history of a somewhat diminished flow of urine, of a specific gravity rather higher than normal. This was very soon corrected by a few doses of ammonium acetate, with which was combined for general tonic effect some tincture of ferric chlorid. During the whole treatment a simple tonic pill was given after each meal, not so much because of existing indications, as to fortify digestion, and with a view to forestall any depressing effects of the disease. Suitable diet was also directed. Beyond this, no internal treatment was used. Locally, great care was taken to keep the sore and its whole neighborhood clean, in a surgical sense, by antiseptic aqueous solutions, by preference, as neater and more agreeable than greasy applications and as equally effective. The whole area was copiously bathed with a strong solution of boric acid in distilled water, to which was added a little sodium borate and about 20 per cent. of alcohol. By means of a pipette the openings of the sore were gently explored and thoroughly douched with a 1 : 500 mercuric chlorid solution, and finally the whole was covered by a pad of lint saturated with the boric-acid solution, kept moist and in place by an impervious cover and bandage. The bathing, douche, and dressing were repeated three times daily, and in twelve days suppuration had about ceased. Granulating surfaces appeared, the surrounding induration had greatly diminished, and the active inflammation having ceased, the appearances of a healing sore were presented. During the progress of the treatment there was much discharge from nine openings, all of which freely admitted the mercurial douche.

The antiseptic solutions so intimately applied to the suppurating surfaces, and the frequent dressings, doubtless greatly lessened the pain, kept down the inflammation, and curtailed the suppurative process. The frequent evacuation of pus prevented the formation of a "core" and diminished the chances of blood-poisoning from absorption. Also, by this means pressure was removed from the surrounding capillary circulation, which tended to preserve and restore to health much of the adjacent tumefied tissues. Certainly the course of so angry a sore and the time to recovery was brief, and it seems fair to give the credit to the agents used and the mode of their application.

The cure was complete and there has been no indications of a recurrence of the trouble, and the health of the patient has been good during the six months that have elapsed since the treatment.

In a general way, poultices in the treatment of furuncle and carbuncle, as increasing the inflammatory process, are to be objected to. They should be used only when special indications call for them. The same remark applies to the use of the knife, because the system would be doubly taxed in its efforts to heal both the sore and the knife-wound.

2211 SPRUCE STREET.

## A CASE OF "ACCIDENTAL" HEMORRHAGE, WITH UTERINE INERTIA.

BY F. W. LOWRY, M.D.,
OF IRON MOUNTAIN, MO.

IN the early morning of June 11, 1891, I was called to see Mrs. O., twenty-eight years old, at term in her fourth pregnancy. In the latter part of the night she had had pains characteristic of beginning labor, which became

suddenly more intense about 4 A.M., when a flow of blood was noticed. When I arrived, the hemorrhage, which was slight, had ceased, and the patient complained only of slight pain in the back.

Vaginal examination discovered the cervix low in the vagina; the os dilated to about the size of a silver quarter; the cervix flaccid; the membranes intact; the head presenting. On abdominal palpation the uterus was found lax.

After an hour, there being no increase of pain and no further show of blood, I left; but called twice during the morning—the last time just before noon, when the pain had ceased entirely. Examination revealed no change since my first visit.

I did not hear from the case again till the evening of June 15th, when I was sent for in great haste, and informed that the patient was flooding badly. I found her with pallid countenance, cold extremities; moist, clammy skin; sighing respiration, weak and rapid pulse. The clothing and bedding were saturated with blood, which was dripping on the floor beneath. There was still a slight flow of blood from the vaginal outlet. Examination revealed about the same condition as was present in the first instance. The head occupied the right oblique diameter. Two fingers could be passed their full length through the os and swept entirely around without reaching the placenta. There was not, nor had there been, any pain.

The question of treatment now presented itself. Immediate delivery was imperative. I believed the uterine inertia, so marked in this case, to be due, partly at least, to over-distention; and later developments proved this to be true.

First ascertaining that the bladder and rectum were empty, and being satisfied that the os would not impede delivery, I gave a dram of fluid extract of ergot in hot water, to insure contraction after the escape of the liquor amnii, and to secure permanent contraction after emptying the uterus, intending to rupture the membranes and deliver immediately with forceps. In ten or twelve minutes the effect of the ergot became manifest in vigorous uterine contractions, a widening os, and tense membranes. I now ruptured the membranes, when it became apparent that the use of the forceps was precluded, spontaneous delivery occurring in a few minutes. The child, a ten-and-a-half-pound boy, was very slightly asphyxiated. The placenta was delivered immediately by expression, a little less than an hour after my arrival at the house. It was very large and extremely friable. The uterus contracted firmly—the tonic contraction of ergot. The mother's pulse now was nearly normal in rate and tension. Before leaving, I repeated the dose of ergot as a safeguard against relaxation. The patient's lying-in was altogether normal. She informed me that between the 11th and 15th she attended to light household duties as usual; that on the evening of the 15th, she was sitting in her room sewing and talking with some friends who had called, when, without warning, the hemorrhage occurred. She lost consciousness, was removed to her bed, and restoratives were applied.

In the latter months of pregnancy there was considerable daily loss of blood per rectum, which ceased a few days before labor and did not return afterward. It did not cause any perceptible impairment of health. It may have served the useful purpose of relieving tension in the friable utero-placental vessels.

This case is reported solely because it presents some unusual features. While ergot accomplished the delivery, it was not administered for that purpose. In spite of the fact that this case seemed specially adapted for the peculiar action of ergot and of the remarkably rapid expulsion of the child, there was some asphyxia, due, I am convinced, to continuous pressure upon the cord and placenta after the membranes were ruptured. Nevertheless, I believe that in selected cases of uterine inertia ergot is indicated—provided the hand that administers the ergot can also, if necessary, reinforce or modify its action with the forceps. The ability to select the cases would presuppose the latter qualification.

## MEDICAL PROGRESS.

***Cystic Tumor of the Brain Successfully Operated Upon.***—At a recent meeting of the New York Neurological Society, Dr. LEO STIEGLITZ reported the case of a woman, twenty-five years old, without hereditary taint and history of previous traumatism or convulsions, who, while quietly talking to her husband, suddenly felt twitchings in the thumb and forefinger of her right hand; the convulsive twitchings spread rapidly, extending to the shoulder and face, and led finally, within the course of a few minutes, to a general seizure, with loss of consciousness, cyanosis, frothing at the mouth, and tonic and clonic convulsions. A similar attack occurred seven weeks later, followed by a number of others. A localized cerebral lesion was suspected, although there was no headache, nausea, giddiness, choked disc. The bromides were given, and after a time there were no general convulsions, but simply convulsive twitchings confined to the right hand and forearm, and always beginning in the thumb and forefinger. These attacks occurred almost daily. Although no history of syphilis could be obtained, specific treatment was instituted, but no improvement followed. In the course of time, a marked paresis of the right hand developed. The deep reflexes were exaggerated, the more decidedly on the right. The urine contained neither albumin nor sugar. There was no elevation of temperature. Sensation was preserved, except for a feeling of numbness in the right hand and arm. A diagnosis of organic lesion, probably a tumor, situated in the left anterior cerebral convolution, was arrived at. An operation was decided upon. A lateral opening in the skull having been made, the dura was seen to bulge but slightly into it. An area on the dura about the size of half a dollar, presented a diffuse yellowish tinge, different from the color of the adjacent dura. The application of the poles of a small faradic battery to the unopened dura, promptly located the center for the movements of the hand and fingers, and the point corresponded with the discolored area referred to. When the dura was opened, the cortex of the brain showed no apparent change. A vertical incision into its substance was followed by a gush of yellow serous fluid, none of which, unfortunately, was saved. Perhaps one ounce of fluid escaped. The walls of the cyst were found to be perfectly smooth. A small layer of gray matter was removed from the center ex-

posed, to prevent disturbances that might develop from possible secondary sclerotic changes. There was but little shock after the operation. On the following day the patient had no power in her right thumb and forefinger, and could move her other fingers and the entire right arm but very slightly. These symptoms gradually improved. Four weeks later the patient had slight convulsive twitchings in her right hand, arm, and face; after the lapse of another week she had more violent twitchings. Ten days later the scalp wound was opened, and the flap of skin was found adherent to the dura. Probing failed to reveal a reaccumulation of fluid in the cyst. The adhesions were separated, and a flexible gold plate was inserted. Two days afterward slight twitching occurred in the three ulnar fingers; the patient could move her fingers, hand, and arm quite extensively. Upon examination, three months later, it was found that the patient had lost the sensation of position in the fourth and fifth fingers of the right hand; she could not tell whether they were flexed or extended. The strength of her hand and arm was greatly increased. In the following month there was considerable twitching in the right arm and face. The patient had been kept on from fifteen to thirty grains of potassium bromid per day following the operation. The conclusion is expressed that the condition is dependent upon the presence of a glioma.

***A New Theory of Sleep.***—ROSENBAUM (Thesis, Berlin, 1892; *Centralbl. f. klin. Medicin*, 1892, No. 49, p. 1054) defines sleep as that condition of consciousness in which the psychic and physical forces are reduced, in greater or less degree, in accordance with the individuality, below the level normal to waking, or under circumstances are entirely suspended. This reduction of force follows as the result of preceding fatigue of the nervous system induced by the activity of the waking hours. The real essence of fatigue resides in a swelling of the nerve-cells, in the presence of an increased quantity of water in the nerve-substance. This absorption of water stands in inverse proportion to the nervous activity; the greater the quantity of water the slighter the irritability, which may disappear entirely. The absorption of water occurs in consequence of the chemical decomposition of the nervous tissues that takes place as a result of the activity. The water thus produced is expired by the lungs as vapor, a small portion in the course of the day, the larger portion, however, during the night, in the course of sleep. The absorption of water from the various organs into the venous circulation is governed by the laws of hydro-diffusion, and is dependent upon the volume and density of the blood, upon the presence of solid constituents, the velocity of the blood-stream, etc. The dissipation of water into the air is governed by the laws of gaseous diffusion, and is dependent upon the air-pressure and the matters contained in the water. On account of the disproportion between the absorption of water and nervous activity, those centers that have furnished the smaller proportion of work will be aroused the earlier—there thus result partial sleep and partial waking at the same time. The ideas cannot be associated—and dreaming is the result. If, on the one hand, a portion of the centers and motor nerves are so far aroused as to send out impulses and convert these into mechanical work, while, upon the other hand, the remaining centers are still so profoundly wrapt in sleep as not to be aroused by these stimuli, the condition of somnambulism results. The nutritive elements assimilated and stored up in the organism take the place of the water thrown off during sleep. The recuperation of the physical and psychic forces after sleep results from this interchange. Intelligence stands in inverse ratio to the percentage proportion of water in the brain, and is to be measured by this standard—at least in the child.

***A Fatal Case of Acute Ascending Paralysis.***—WATSON (*British Med. Journal*, No. 1667, p. 1286) has reported the case of a coal-miner who, after partaking of beer to the point of intoxication, lay on the damp ground and went to sleep for four or five hours. He was then carried home and put to bed. On the following morning, on attempting to rise, he found that he could lift his legs only with great difficulty, and that the thighs were weak; there was also an aching in the lower part of the back, with much formication in the feet and hands. The symptoms grew progressively more aggravated, and after five days there was complete paraplegia. There was no anesthesia, no ankle-clonus; and the knee-jerks were absent on both sides. The pupils reacted sluggishly to light and in accommodation. Heart, lungs, and urine presented no abnormality. A day later, the lower extremities were entirely paralyzed, and the abdominal muscles were becoming affected. There was, however, no incontinence of urine or of fecal matter. During the day the paralysis rapidly extended upward, involving successively the abdominal, the lower and the upper intercostal muscles; next those of the hands, arms, and shoulders, and, finally, the diaphragm, swallowing becoming impossible, and suffocation ending life. Toward the last, speech became affected, and the masticatory and facial muscles became markedly weakened, so that the eyelids could not be firmly closed or the mouth pursed up, as in whistling or blowing. In treatment counter-irritation was applied to the spine and ergot was administered internally. At the post-mortem examination the viscera were found healthy. The membranes of the cord were congested. The cord itself presented no lesion, macroscopically or microscopically.

***The Etiology of Essential Anemia.***—KRÜGER (*St. Petersburger medicin. Wochenschr.*, 1892, No. 50, p. 471) expresses the opinion that anemia is never a disease *sui generis*, but is in every instance only a symptom. In a study of the comparative determinations of the residuum and of the hemoglobin in the blood of the afferent and efferent vessels of the spleen he found that the blood of the splenic vein was richer in dry residue and hemoglobin than the blood of the splenic artery. The increase or diminution in blood coloring-matter corresponded with the increase or the diminution of the dry residue. The conclusion is arrived at that hemoglobin, in addition to being broken up, is also manufactured in the spleen, construction, as a rule, exceeding destruction. Finally, the view is expressed that pernicious anemia and chlorosis, both of which are considered as the expression of a common condition of varying intensity, are dependent upon irritation of the sympathetic nervous system, resulting in altered function of the spleen.

***Spontaneous Closure of Rupture of the Uterus.***—RICHTER (*Deutsche med. Wochenschr.*, 1892, No. 45, p. 1012) has reported the case of a woman in labor to whom he was called by a midwife, because, at the time when it was expected that the head was about to be expelled, the parturient suddenly vomited and lost consciousness and the pains ceased. Rupture of the uterus was at once suspected and steps were taken to turn and extract the child. The child was delivered in a state of asphyxia and could not be resuscitated. It became necessary to remove the placenta manually. This was found free in the uterine cavity, while a defect was noted on the left side of the anterior wall of the uterus. A two-pound sandbag was placed upon the abdomen, fifteen minims of ergot were given every hour for three hours, and fifteen drops of tincture of opium were administered three times daily. There was inconsiderable hemorrhage and the woman slowly recovered.

***Prurigo.***—At the Second Congress for Dermatology, recently held at Vienna, VIDAL (*Monatshefte f. prakt. Dermatologie*, xvi, 1, p. 11) expressed the view that prurigo, like lichen simplex circumscriptus, is a chronic papular neuro-dermatitis, anatomically belonging in the category of papular affections, but pathogenetically being a dermato-neurosis. The affection is not an independent disease, but results from a number of pathologic conditions, of which the two most important are a neurotic disposition and a lymphatic constitution (the scrofulous diathesis of older authors.) The affection usually makes its appearance in the first two years of life, though its manifestations may be first observed during a later period of childhood, or still later. Although recovery is not the rule, it is not of rare occurrence. Well-directed management may be followed by improvement and remissions of long duration, particularly if the skin be protected from irritation of all kinds.

***Incoercible Vomiting and Salivation of Pregnancy, Requiring Abortion.***—DAVIS (*Chicago Clinical Review*, i, 3, p. 221) has reported the case of a deutipara, thirty-seven years old, in which, in the third week of pregnancy, vomiting and salivation set in. For more than a month the usual remedies were employed, but without success, the phenomena persisting, and the woman steadily losing ground. Finally, it was determined to empty the uterus. The os was first dilated by means of tents, and a soft-rubber male catheter was afterward introduced into the uterus. After a little time the embryo was expelled, but it was necessary to remove the secundines instrumentally. No unpleasant sequelæ appeared, and the vomiting and salivation gradually subsided. The woman had suffered similarly from the third week throughout her previous pregnancy, but in less intense degree.

## THERAPEUTIC NOTES.

***Potassium Bitartrate for the Ascites of Hepatic Origin.***—SASAKI (*Berliner klin. Wochenschr.*, 1892, No. 47, p. 1184) has reported eight cases of chronic interstitial hepatitis of portal type, one case of biliary type, and two cases of syphilis of the liver, in all of which the ascites present was greatly relieved by the administration of full doses of potassium bitartrate. If the nutrition be impaired, iron, quinine, cod-liver oil, and good diet may be given conjointly. Not much benefit is to be expected when the ascites is dependent upon malignant disease. The dose varies from two to ten drams in the course of the day; an average quantity would be from two and a half to five drams daily; the best dose is that which will cause two or three bowel-movements. If the accumulation of fluid is very large, paracentesis may be practised in conjunction with the administration of potassium bitartrate. The drug is, as a rule, well borne, and in cases may be given for months. Its good effects are to be ascribed to its laxative and diuretic action.

***Arsenic as a Prophylactic.***—Governed by a statement that persons taking arsenic are insusceptible to vaccination, BRYAN (*Brit. Med. Journ.*, No. 1665, p. 1187) employed the drug as a prophylactic in scarlet fever, and believes that he has by this means checked an epidemic. In a family in which one child had severe scarlatina, arsenic was given to the other two children, who were not attacked, though they continued to be about the patient until she died, after three weeks. In another family, a boy, seven years old, had scarlet fever, but the four other children, from three to eleven years old, did not contract the disease; while the mother aborted, but was not herself attacked by the disease. There is evidence that arsenic is valuable also as a prophylactic against diphtheria and influenza. Bryan gives gr. $\frac{1}{10}$ of arsenious acid, or ♏ij. of the official solution of potassium arsenite, three times a day for the first week and afterward twice a day.

***Ferric Chlorid in the Treatment of Diphtheria.***—HUEBNER (*Therapeutische Monatshefte*, vi, 12, p. 640) reports the treatment of fifty-two cases of diphtheria by means of topical applications of the solution of ferric chlorid, with but two deaths; scrupulous attention at the same time being given to the general management of the case.

ROSENTHAL (*Ib.*, p. 641) reports the employment of a 2 per cent. solution of ferric chlorid in water to which a small quantity of glycerin has been added, of which from a teaspoonful to a tablespoonful was given every hour. Seventy-nine cases were thus treated, and of these six terminated fatally.

***For Hiccough.***—In a case of obstinate hiccough in an elderly man of gouty tendency, SYMES (*Dublin Medical Journal*, December, 1892, p. 488) succeeded in controlling the spasm by the administration, every sixth hour, of the following combination:

| | |
|---|---|
| ℞.—Potassii iodidi . . . | gr. iij. |
| Chloral. hydrat. . . . | gr. v. |
| Potassii bromidi . . . | gr. vij. |
| Potassii bicarbonatis . . | gr. xv.—M. |

***Ergot for Atony of the Bladder.***—REGINALD HARRISON (*Clinical Journal*, i, 3, p. 95) warmly recommends the employment of ergot in the treatment of atony of the bladder, and also of hematuria associated with prostatic enlargement:

| | |
|---|---|
| ℞.—Ext. ergotæ fluid. . . . | gtt. x. |
| Aquæ cinnamomi . . . | ʒj.—M. |

S.—Three times daily.

# THE MEDICAL NEWS.

*A WEEKLY JOURNAL*

OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will upon publication be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary to elucidate the text, illustrations will be provided without cost to the author.

Address the Editor: GEO. M. GOULD, M.D.,
1004 WALNUT STREET,
PHILADELPHIA.

***Subscription Price, including Postage in North America.***

PER ANNUM, IN ADVANCE . . . . . : $4.00.
SINGLE COPIES . . . . . 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in *registered* letters.

Address, LEA BROTHERS & CO.,
Nos. 706 & 708 SANSOM STREET,
PHILADELPHIA.

SATURDAY, FEBRUARY 11, 1893.


## *STATE BUREAUS OF LIVE-STOCK INDUSTRIES.*

THE scientific investigation in public and private laboratories of the causes of diseases that afflict the human family, especially those of microbic origin, with the object of their prevention and cure, is of immense importance, not only for the prospective value of discoveries that may be made in the line of original research, but also for the benefit to be derived from teaching what has already been discovered. There is a wide range for exploration and research in the domain of the etiology of disease, and there is also room for the dissemination of the results of discoveries that have given to modern investigation so much merited distinction.

A collateral branch of inquiry, likewise most beneficial in its results, is that which embraces the investigation of diseases that affect domestic animals, both those that may be transmitted to man, and those that are peculiar to animals. The economic advantages of such investigations are very great, as it can be shown beyond a doubt that millions of dollars are lost every year in the United States by the ravages of disease among domestic animals, which belong to the preventable class. To save this great loss, as well as to restrict and suppress disease that may be conveyed in various ways from animals to man, is certainly a humanitarian undertaking, and as such deserves encouragement and support. The Bureau of Animal Industry instituted under the general government has this twofold object in view, but the labors of this organization should be supplemented by efficient bureaus under State management, all working in coöperation for the same end. Such an arrangement would secure to the State the manifold advantages of an authoritative organization, charged with the investigation and the supervision of measures for the suppression of diseases communicable from animal to animal, and from animal to man. It could with advantage be attached to the State Agricultural Department, or to the State Board of Health. Its functions should not only be to investigate these diseases and seek to improve the knowledge already procured, but also to disseminate information amongst farmers and stock-raisers, and furnish data upon which the needed legislation could be formulated, as well as to give advice and lend aid in stamping out diseases that occasionally appear amongst herds of cattle.

We have been led to these remarks by the perusal of a bill recently introduced in the Legislature of Nebraska for the establishment of a Bureau of Live-stock Industries, and for the erection and maintenance of a patho-biologic laboratory for the investigation of infectious animal diseases in connection with the work of the said bureau, and for the further protection of the interests of stock-breeders. It is proposed that the officers of the bureau shall consist of a veterinarian and assistant, a chemist, veterinary inspectors, and such other officials as may be found necessary. The director of the patho-biologic laboratory shall be an experienced veterinarian, who must have an acknowledged reputation in the investigation of live-stock diseases. The veterinarian is made responsible for all the work of the bureau, and for the general direction of its officers; he is also to make or direct and supervise continuous and careful study of the diseases of live stock, especially with a view to their prevention, cure, or eradication.

The assistant veterinarian, as chief executive officer of the bureau, is responsible for the faithful and prompt action of the veterinary inspectors, and such other officers as may assist in the work. He is also charged with the duty of supervising the traffic and movement of live stock within the State in its relation to the spread of infectious diseases. The execution of the laws and regulations for the

suppression and prevention of infectious or other diseases in the live stock of the State is placed in the hands of the sheriffs of the counties, the marshals or chiefs of police of cities or towns, or such officers as are charged with the execution of the laws in general. The officials of the bureau are authorized to enter any premises on which infectious disease is known to exist among any species of domestic animals, or is suspected to exist, for the purpose of examining said animals, and of executing the laws of the State. Power is given to condemn and kill any animal or animals in which an infectious disease exists, or is supposed to exist; or to securely quarantine such animals, according to circumstances. Provision is made for indemnification of the owners of animals after appraisement, but only in certain cases.

An important provision of the bill is one that requires the owner or owners of live stock, and any person who may have knowledge of the existence of any infectious disease in any live stock in the State, or who may have knowledge of symptoms that excite a suspicion in his mind that the disease may possibly be infectious, to immediately notify in writing the sheriff of the county, or proper officer, of the existence of such disease, or of the existence of his suspicions.

Selling or disposing of any animal or animals in which an infectious disease exists; or bringing into the State such diseased animals; or allowing the same to be with healthy animals, is made punishable by a heavy fine. Stock-yards must be provided with a competent inspector at the expense of the owners. Railroads are prohibited from transporting diseased animals. Provision is made for disinfecting cars in which such animals may have been transported.

The bill appears to have been drafted by a competent hand. Its provisions are comprehensive, wise, and salutary. The effect of their efficient enforcement would be in time to eradicate from the State those diseases that are so destructive to live stock, and that in some cases are dangerous to the human family, and thereafter to guard against invasions of disease. Leaving out of the question the protection of human life, the immense economic benefits to be reaped from the enforcement of such a law are alone sufficient reason why it should receive legislative sanction.

The sooner people discard the idea that they have a license to do as they please with what they call their own, independently of the influences of their acts upon the community, and learn to yield a hearty coöperation with the beneficent provisions of the law intended for the weal of the entire community, the sooner they will realize the advantages and protection that such laws afford them. It would be well if each State had its Bureau of Animal Industry and hearty coöperation were established among them; for the advantages of concerted action would be prompt and general, and would show in striking contrast with the results of the efforts of the few isolated stations in the country, which are hampered and restricted through the lack of coöperation on the part of other States.

## THE INFECTIOUSNESS OF HERPES ZOSTER.

WHILE not a common affection, herpes zoster is not at all a rare affection. Usually an acute disorder of brief duration, tractable and self-limited, it generally falls into the hands of the general practitioner rather than of the dermatologist. The disease is usually supposed to be a tropho-neurosis dependent upon lesions of the nervous system, and most commonly an affection of the peripheral nerves. The condition has been observed in conjunction with traumatism, erysipelas, syphilis, malaria, rheumatism, tuberculosis, and catarrhal affections.

WASILIEW[1] takes issue with the commonly accepted view as to the etiology of herpes zoster, basing his conclusions upon a review of the literature and upon a study of 274 cases gathered in a collective investigation by the Medical Society of Thüringen. He finds many reasons for excluding the nervous influence and for accepting an infectious origin. He points out that the phenomena presented by the disease clinically correspond closely with those observed in other infectious diseases. There is usually a prodromal stage, which may be marked by malaise, nausea, headache, gastric derangement, and local itching or burning. Fever is not uncommonly present, sometimes before the appearance of the eruption; at other times after the eruption has appeared. It may last two or three days, to disappear with the eruption, or it may persist after this has disappeared. In a small number of cases involvement of the nearest lymphatic glands has been observed. At the site of the eruption there is usu-

[1] Herpes Zoster und dessen Einreihung unter die Infectionskrankheiten. Besonderer Abdruck aus der Correspondenz-blätter des allgemeinen ärztlichen Vereins für Thüringen, Jahrgang xxi, No. 5. Jena: Gustav Fischer, 1892.

ally burning, itching, or pricking, and commonly there is intense neuralgic pain. There are on record not a few instances of epidemics of herpes zoster, and evidence is not wanting as to direct infection. One attack usually confers immunity to subsequent attacks, though, as in other infectious diseases, recurrence sometimes takes place. Finally, protozoa have been found in the diseased skin.

In antagonism to the view of the nervous origin of the disease, it is pointed out that the affection does not always pursue the course of a single nerve, as has been stated; neither is it always confined to one side of the body. Its distribution is better explained by the blood-stream. In some cases lesions of the nerves have been found; the vessels have, however, usually suffered as well. In a few cases no changes whatever have been demonstrable. It is not at all unlikely that under the conditions first noted the changes in the several tissues have been due to a common cause.

The views outlined in the foregoing can thus far be considered only as hypothetic, and in support of which further evidence must be presented. The theory is on its face a plausible one. Careful observation, however, with the new light shed upon the subject, will be required for its substantiation before it can receive general acceptance. One cannot be too guarded at this day, when the tendency is so universal to ascribe all affections to a definite specific infection.

## EDITORIAL COMMENTS.

***The Parasitism of Disease.***—The list of diseases of demonstrable parasitic origin is constantly growing. An analysis of the successive stages through which our views upon the infectious diseases have passed makes an interesting study. For a while investigators were bent upon finding a specific microorganism for every well-defined disease. It took some time to learn that while the microbe is the most important factor in the development of the given disease, it is not the sole element. Then began the study of the products of the bacteria, which was soon followed by remarkable developments in the direction of immunity and cure. For a time the vegetable organisms occupied almost universal attention. Now the scene has changed. With Laveran's description of the hematozoön of malarial fever a new line of investigation was opened, in which but little progress was made until recently. Great interest attaches to the study of the animal parasites of certain infective diseases. We know that a form of dysentery is dependent upon a protozoan ameba. Testimony is accumulating in favor of the etiologic dependence of carcinoma upon animal organisms. More recently still an observer describes characteristic animal organisms associated with measles, scarlatina, syphilis, and smallpox. We conclude as we began: The list of infectious (parasitic) diseases is constantly growing.

***The Official Languages at the Pan-American Medical Congress.***—*The Deutsche medicinische Wochenschrift*, of January 12, 1893, p. 47, contains an open letter from the distinguished German surgeon CZERNY (who is an honorary member of the American Surgical Association), addressed to our own MASTIN, politely declining an invitation to attend and participate in the sessions of the Pan-American Medical Congress, because, as he quotes, "the languages of the Congress shall be Spanish, French, Portuguese and English," "although remarks in any other language will be permitted, provided one of the members present expresses a willingness to make a translation into one of the four official languages." We presume that German was not included in the list as not being one of the languages of any of the countries of America, but, as CZERNY points out, the important place that German literature holds in the scientific world; the large number of Americans that complete and elaborate their medical education in Germany, and the frequency with which the German language is used in parts of America, would seem to make it not only desirable, but also imperative, that addresses at the Congress be permitted to be made also in German, unless it is intended that the proceedings be conducted only in the languages of America.

***The Function of the Thyroid Gland and the Therapy of Thyroid Disease.***—The function of the thyroid gland is an undeveloped chapter in human physiology. That this organ subserves quite an important part in the animal economy would seem demonstrated by recent experimental and surgical experience. Whether the influence be a nutritive or a chemical one, it is clear that the nervous system bears the brunt of thyroid disease. It is reasonable to assume that the thyroid, directly or indirectly, neutralizes certain products of normal metabolism, which, unacted on (in consequence of the removal of the functional influence of the gland), by their presence give rise to the phenomena that we recognize clinically as exophthalmic goiter, myxedema, cretinism, and the cachexia strumipriva, as well as other conditions, without a definite place in our nosology. The recognition of this fact has led to the therapeutic employment of the thyroid gland or of an extract prepared from the gland, by subcutaneous injection, by grafting or by the mouth;

and to the precaution of not removing operatively the entire gland; the results of which in turn support the view of the function of the gland suggested.

***An Illustration of the Fallacies of Statistics.***—It is an old saw that statistics can be made to prove anything. That they must be used with intelligence, and not mechanically, is well known. This fact cannot be better illustrated than by the statement of an able ophthalmologist of England, who, in a recent issue of the *Lancet*, reports in 10,000 cases of eye disease 4441 cases of emmetropia. American oculists at once recognize that their European brethren understand the term emmetropia very differently from themselves, and that they also differ very greatly as to the proper methods of its determination. It is an important omission on Mr. Carter's part that he does not define his terms. Some of our best ophthalmic surgeons doubt if they have ever seen a case of emmetropia, and at best the proportion is exceedingly small. In the same way that in 10,000 cases, 3148 should be myopic and only 2323 hyperopic, is widely at variance with American case-record book.

***Tammany vs. The People of the United States.***—With absolute unanimity the New York Academy of Medicine has condemned the New York quarantine system and management, and has appointed a committee to go to Washington and protest against the mutilated and crippled Quarantine Bill now pending before the Senate. A similar action had previously been taken by the College of Physicians of Philadelphia. The voice of the entire medical profession should be heard no less plainly and indignantly against the degradation and shame of endangering the lives of the whole people for the financial benefit of a crowd of politicians. It is now simply a question of choice between the national health and safety and the continuance in office and plundering of a few incompetent ward-politicians. If every medical society would also act as it should there would soon be an end to this brutal and outrageous selfishness.

***A National Health-Organization.***—However important the nationalization and stringent systematization of quarantine may be (and no public health measure is more so), it yet remains equally true that to prevent and stamp out disease within the lines is quite as necessary, and in the long run, is even more important. There are to-day, for example, thousands of unacclimated immigrants in the Southern States, and with warmer weather an epidemic of yellow fever, always more or less endemic there, may burst forth with malignant energy. Simple common sense and self-preservation must bring about a national health-organization, whose office it shall be to deal with all questions appertaining to the prevention of disease, if possible, and failing in this, putting to use a machinery capable of coping with widespread epidemics of any and all kinds when they arise. Why must we wait till taught by the bitter lessons of experience and death?

***An Epileptic Colony in New York.***—A committee of the State Board of Charities has recommended to the Legislature the purchase of a farm in Livingston County, to be used as a colony for the 500 or more epileptics now scattered about among the poorhouses. A similar movement is afoot in England. For the sake of the patient, the State, and civilization, it is most urgent that the legislation authorizing the movement may be speedily enacted, and that other States and all States may adopt this wise and humane method of procedure.

***The Lancet Relief Fund.***—Every year, in the month of January, the proprietors of the London *Lancet* provide a sum of money of not less than $1500, for the purpose of affording immediate pecuniary assistance to medical men, or their widows and orphans, in cases of distress and emergency, by the grant of money, by way of loans, free of interest, or gifts, as the circumstances may require.

***Typhus Fever in New York.***—The attention directed to cholera renders the people and the medical profession indifferent to the fatality and danger of other diseases. It is quite true that our country is almost, or quite as much, in danger from typhus as from cholera. There have lately been somewhat more than over 200 cases in New York City. It seems impossible to prevent their continued reappearance, and the disease may soon spread to other cities and States.

## CORRESPONDENCE.

### THE NEED OF SPECIAL HOSPITALS FOR THE TREATMENT OF TUBERCULOUS PATIENTS.

*To the Editor of* THE MEDICAL NEWS,

SIR: The onward march of that dread disease, tuberculosis, is not to be wondered at, if we consider the little that is done to prevent or arrest it. Little or no provision has been made in the hospitals for the care and treatment of tuberculous patients. On the contrary, they are received as an unavoidable burden, and are crowded into wards, where they are more or less smothered in their own exhalations and excretions, on the supposition that they will die anyway. In bad weather all are confined to the wards twenty-four hours in the day, and those bedridden necessarily all of the time, and often in wards of which the ventilation is remarkable for its absence or its total inconsistency with ordinary hygienic laws. Moreover, absolute cleanliness is not attainable in wards

or rooms occupied throughout the day and night; but without these, such a place serves as a nidus and an incubator for the propagation and maintenance of disease.

When a physician is consulted by a person of means who has, or fears that he has, pulmonary tuberculosis, what is the usual advice given? After a careful physical exploration and a "sizing up" of the patient generally, in regard to idiosyncrasies, etc., the advice given is change of climate, and a place is usually designated where the pursuit of health and happiness may possibly be succcssful. This prescription given to a person of means can easily be followed, and usually with beneficial results; but in the case of the poor it is quite a different matter. People of moderate means, who are tied down by business cares, and the poor, are thus deprived of the "treatment" which at present is the only one that can be said to exert any distinct influence upon the disease. It is for this class that I wish to enter a plea and to suggest methods by which they may be benefited.

A hospital designed to meet the needs of this class of patients must be especially constructed for that purpose, and should contain day and night wards, so arranged that beds, etc., can readily be transferred from one to the other. The wards should be of medium size, with facilities for admitting floods of light and sunshine. Furthermore, they should be *air-tight*, ventilation being provided for as I shall hereafter describe. This is readily accomplished by laying the floor of tiling in good cement, and covering the walls and ceiling with a good quality of cement. The windows should consist of large plates set in lead frames and cemented in place, and the doors should be provided with rubber packings. The walls and ceilings should be painted with good paint and then varnished. The tiled floor should be laid so as to be higher near the walls and sloping slightly toward the center of the room. A room thus prepared can be rendered absolutely clean and aseptic by flooding it daily with a spray or stream of mercuric chlorid, the walls, ceilings, and floor being then scraped with rubber scrapers and dried with mops. The mercurial solution runs into a tank beneath the floor, where it is allowed to collect, and can be used many times, as its antiseptic qualities, of course, are not diminished.

The ever-increasing cheapness and utility of electricity recommend it as an agent to be used indirectly as well as directly in the treatment of disease, and in the present instance this agency would play an important part in the system of ventilation I am about to describe. We will trace the air from its ingress to its egress. As it is drawn in, the air is forced through a solution to free it of carbon dioxid. It is then rendered warm and aseptic by passing slowly over and among coils of wire rendered incandescent by electricity. It could then be treated as experience would best indicate; that is, it could be rendered dry or moist, charged with additional oxygen or other medication; by passing it through a drying mixture or a spray, medicated or otherwise. A supply motor and fan then forces the air into the ward through numerous openings near the ceilings and from all sides. The air escapes from similar openings near the floor, being drawn out by another motor and fan and is discharged into some antiseptic mixture and allowed to escape. A gentle current is thus maintained in the room from above downward, which would not allow the bacilli-laden dust to rise high enough to be inhaled.

The object of having two motors and fans is to regulate the *pressure* in the ward so as to simulate at will the mountain air, the pressure at sea-level, or in the valley below sea-level. The room being air-tight, any degree of pressure from the lowest to that of two atmospheres can be obtained. The pressure can be regulated automatically by a barometer with electric connections, which can be set at any level. If the pressure becomes too great the barometer, of course, rises, makes the connection to increase the speed of the egress motor, thus drawing out the air more rapidly than it is forced in, and *vice versa*. An electric thermometer controls the temperature automatically in the same way and keeps the wires more or less incandescent, according as the temperature is increased or lowered. The lighting should be by electricity, to avoid the products of the combustion of oils, etc. So much for the mechanical part of the subject. The furnishings should consist of as little as possible and should be of iron, which an occasional mercurial bath would not damage. The bedding should be completely changed daily, washed and wrung out of a 1:1000 mercurial solution, and allowed to dry. The foregoing system, combined with the ordinary therapeutic measures, I am convinced would be the means of saving many lives and relieving much suffering.

This is merely an outline of a system that I would like to see inaugurated in the United States, where the wealth and generosity of its citizens enable such a project to be not only possible but probable, especially when fostered and aided by skilful physicians.

Respectfully, A. T. WEBB, M.D.

87 VIA NAZIONALE, ROME, January 9, 1893.

## A "CANCER CURE."

*To the Editor of* THE MEDICAL NEWS,

SIR: Wood-sorrel (oxalis acetosella), written of in your journal for January 28 (p. 110), is not a new remedy for carcinoma and it has better support than the testimony of old women. It has received professional indorsement, and professional evidence has been presented in its favor. A search through my reference books has been in vain, however, and I call attention to it because others may be more fortunate. My impression is that I saw notices of it in the *Brooklyn Med. Journ.* or *Annals* many years ago. Respectfully, J. C. REEVE.

DAYTON, OHIO.

## THE KEELEY SYSTEM.

*To the Editor of* THE MEDICAL NEWS,

SIR: I was very much interested in an article on alcoholism, by H. Ernest Schmid, published in THE NEWS of January 28. The author seems to have hit upon the essential plan of the Keeley system, that of "operating on the mind and of restoring the dethroned will-power."

As we are located near Dwight, many patients from this city have been there, and from various conversations with them, and after hearing a description of their symptoms while taking the treatment, I have come to the conclusion that the following, obtained from one of

the graduates who had the medicine analyzed, is the secret of the Keeley cure.

Patients on entering the institute are given a mixture containing

| | |
|---|---|
| ℞.—Aurii et sodii chloridi | ℥ss |
| Strychninæ nitrat. | gr. iv. |
| Atropinæ sulph. | gr. j. |
| Glycerini | ℥ij. |
| Ex. fl. cinchonæ q. s. | ℥xvj—M. |

Sig.—One teaspoonful in water three times a day.

The members report four times a day and receive a hypodermatic injection of strychnine nitrate gr. $\frac{1}{80}$. They are told that they can have all the liquor they want. "If you feel like taking a drink," says the doctor, "just ask for it." Mark you now, here is the secret. If the patient asks for a drink of whiskey he gets it; but instead of the injection of strychnine nitrate, he receives one of apomorphine, gr. $\frac{1}{10}$. Of course, the whiskey makes him sick; he is unable to retain his once favorite beverage, and he promptly informs his fellow undergraduates, and writes his friends glowing accounts of the great change and new life that have come over him since taking this wonderful cure, which he feels sure could only have been brought about, as Mr. Keeley himself said in a lecture here recently, by divine appointment.

The reason why Mr. Keeley does not give his secret to the profession is obvious. Respectfully,

J. J. BROWNSON, M.D.

DUBUQUE, IOWA.

## MEETINGS OF SOCIETIES.

Copied from the *Medical Standard*, February, 1893.

| Association. | President. | Secretary. | Place and time. |
|---|---|---|---|
| **NATIONAL.** | | | |
| American Academy | J. E. Emerson, Detroit. | C. McIntyre, Easton, Pa. | Milwaukee, June 5, 1893. |
| " Andrological | E. R. Palmer, Louisville. | J. A. Fordyce, New York. | Harrogate, Tenn., June 20, 1893. |
| " Climatological | G. T. Jackson, New York. | G. H. Fox, New York. | Milwaukee, Sept. 5, 1893. |
| " Gynecological | T. Parvin, Philadelphia. | H. C. Coe, New York. | Philadelphia, May 12, 1893. |
| " Laryngological | C. H. Knight, New York. | M. J. Asch, New York. | New York, May, 1893. |
| " Medical | Hunter McGuire, Richmond, Va. | W. B. Atkinson, Philadelphia. | Milwaukee, June 6, 1893. |
| " Medico-Psychological | J. Curwen, Warren, Pa. | H. M. Hurd, Baltimore. | Chicago. |
| " Obstetricians | L. S. McMurtry, Louisville, Ky. | W. W. Potter, Buffalo. | Detroit, June 1, 1893. |
| " Ophthalmological | S. B. St. John, Hartford, Conn. | H. Derby, Boston. | New London, Conn., July 20. |
| " Orthopedic | J. J. Steele, Louisville, Ky. | J. Ridlon, Chicago. | St. Louis, Sept. 19, 1893. |
| " Physicians | A. L. Loomis, New York. | H. Hun, Albany. | Washington, May 30, 1893. |
| " Railway Surgeons | C. W. P. Brock, Richmond, | E. R. Lewis, Kansas City. | Omaha, June, 1893. |
| " Rhinological | E. K. Lewis, Indianapolis. | R. S. Knode, Omaha. | Indianapolis, Oct. 1893. |
| Mississippi Valley | R. S. Sutton. | C. A. L. Fitzpatrick. | Indianapolis, Oct. 12, 1893. |
| Pan-American Congress | Wm. Pepper, Philadelphia. | C. A. L. Reed, Cincinnati. | Washington, Sept. 5, 1893. |
| **STATE.** | | | |
| Alabama | J. T. Searcy, Tuscaloosa. | T. A. Means, Huntsville. | Tuscaloosa, April 8, 1893. |
| Arkansas | J. T. Jelks, Hot Springs. | L. P. Gibson, Little Rock. | Little Rock, June 2, 1893. |
| California | W. E. Taylor, San Francisco. | W. W. Kerr, San Francisco. | San Francisco, April 18, 1893. |
| Colorado | W. E. Wilson, Denver. | H. S. Lobinger, Denver. | Denver, June 15, 1893. |
| Connecticut | C. B. Newton, Stafford Springs. | N. E. Worden, Bridgeport. | Hartford, May 24, 1893. |
| Dakota, North | A. P. Rounseveille, Larimore. | D. S. Moore, Jamestown. | Jamestown, May 25, 1893. |
| Dakota, South | A. L. Peterman, Parker. | R. C. Warne, Mitchell. | Huron, June 4, 1893. |
| Delaware | E. W. Cooper, Camden. | W. C. Pierce, Wilmington. | Rehoboth, June 13, 1893. |
| Florida | S. Stringer, Brookville. | J. H. Douglas, Jacksonville. | Jacksonville, April 4, 1893. |
| Georgia | A. H. Smith, Hawkinsville. | D. H. Howell, Atlanta. | Americus, April 21, 1893. |
| Illinois | E. F. Ingalls, Chicago. | D W. Graham, Chicago. | Chicago, May 16, 1893. |
| Indiana | G. F. Beasley, Lafayette. | E. S. Elder, Indianapolis. | Indianapolis, May 9, 1893. |
| Indian Territory | D. Bagley, Vinita. | H. B. Smith, McAlester. | Atoka, June 5, 1893. |
| Iowa | C. M. Hobby, Iowa City. | C. S. Chase, Waterloo. | Des Moines, May 18, 1893. |
| Kansas | F. F. Dickman, Fort Scott. | G. C. Purdue, Wichita. | Topeka, May, 1893. |
| Kentucky | A. Dixon, Henderson. | Steele Bailey, Stanford. | Frankfort, May 3, 1893. |
| Louisiana | S. E. Archenard, New Orleans. | P B. McCutcheon, New Orleans. | New Orleans, May 9, 1893. |
| Maine | A. H. Mitchell, Brunswick. | C. D. Smith, Portland. | Portland, June 14, 1893. |
| Maryland | L. McLane Tiffany, Baltimore. | G. L. Taneyhill, Baltimore. | Baltimore, April 25, 1893. |
| Massachusetts | J. C. White, Boston. | F. W. Goss, Roxbury. | Boston, June 13, 1893. |
| Michigan | G. V. Chamberlain, Flint. | C. W. Hitchcock, Detroit. | Muskegon, May 11, 1893. |
| Minnesota | A. W. Abbott, Minneapolis. | C. B. Wetherle, St. Paul. | Minneapolis, June 21, 1893. |
| Mississippi | W. Kiger, Vicksburg. | H. H. Haralson, Meridian. | Jackson, April 18, 1893. |
| Missouri | A. B. Miller, Macon. | F. R. Fry, St. Louis. | Sedalia, June 20, 1893. |
| Montana | W. Trearcy, Helena. | Dr. Ellis, Butte. | Great Falls, April 19, 1893. |
| Nebraska | M. L. Hildreth, Lyons. | G. Wilkinson, Omaha. | Nebraska City, May, 1893. |
| New Hampshire | M. W. Russel, Concord. | G. P. Conn, Concord. | Concord, June 20, 1893. |
| New Jersey | G. T. Welsh, Passaic. | W. Pierson, Orange. | Spring Lake, June, 1893. |
| New York Association | S. W. McLeod, New York. | E. D. Ferguson, Troy. | New York, Oct. 19, 1893. |
| North Carolina | J. W. McNeill, Fayetteville. | R. B. Jewett, Wilmington. | Wilmington, May 7, 1893. |
| Ohio | D. P. Allen, Cleveland. | T. V. Fitzpatrick, Cincinnati. | Put-in-Bay. |
| Pennsylvania | H. L. Orth, Harrisburg. | W. B. Atkinson, Philadelphia. | Williamsport, May 16, 1893. |
| Rhode Island | W. H. Palmer, Providence. | W. R. White, Providence. | Providence, June 2, 1893. |
| South Carolina | W. H. Narlen, Anderson. | W. P. Porcher, Charleston. | Sumter, April 3, 1893. |
| Tennessee | C. W. Beaumont, Clarksville. | D. E. Nelson, Chattanooga. | Nashville, April 11, 1893. |
| Texas | J. W. Osborne, Cleburne. | H. A. Weston, Galveston. | Galveston. May 2, 1893. |
| Vermont | J. W. Jenne, St. Louis. | D. C. Hawley, Burlington. | Montpelier, Oct. 14, 1893. |
| Virginia | H. M. Nash, Norfolk. | L. B. Edwards, Richmond. | Charlottesville, Oct. 1893. |
| West Virginia | D. P. Morgan, Clarksburg. | D. Mayer, Charlestown. | Parkersburg, June, 1893. |
| Wisconsin | B. T. Phillips, Menominee. | C. S. Sheldon, Madison. | Milwaukee, May 3, 1893. |